

1 PUBLIC HEARING FOR THE
2 DEWEY-BURDOCK UNDERGROUND
3 INJECTION CONTROL DRAFT PERMITS
4 AND PROPOSED AQUIFER EXEMPTION
5
6

7 May 11, 2017
8 1:00 p.m. to 8:07 p.m.
9

10 St. James Catholic Church
11 310 Third Avenue
12 Edgemont, SD 57735
13
14
15
16
17
18
19
20
21
22
23
24
25

1 REGIONAL JUDICIAL OFFICER SUTIN: Good
2 afternoon, everyone. We're going to get
3 started. Thank you all for coming today. My
4 name is Elyana Sutin, and I am the Regional
5 Judicial Officer for the Environmental
6 Protection Agency in Denver, Colorado. I will
7 be presiding over the hearing today.

8 In addition to myself, we have other staff
9 for EPA here to assist to ensure that everybody
10 one who wants to make comments today has the
11 ability to do so. So I want to introduce those
12 folks to you. In case you have any questions,
13 you can reach out to one of them.

14 Douglas Minter is sitting here at the table.
15 Douglas is the manager of the Underground
16 Injection Unit in the Office of Water Protection
17 at EPA.

18 Valois Shea works with Douglas in the
19 Underground Injection Unit.

20 Lynne Newton is back here at the
21 registration table. She also works with Douglas
22 and Valois.

23 Lisa McLain-Vanderpool is back here. She is
24 our Public Affairs Specialist in the Office of
25 Communications.

1 And then we also have Sisay Ashenafi, who is
2 in our Community Involvement Office. He's a
3 Community Involvement Specialist.

4 On March 6, 2017, EPA issued two draft
5 Underground Injection Control, or UIC,
6 permits -- excuse me -- area permits to
7 Powertech USA, Inc., for injection activities
8 related to uranium recovery near Edgemont,
9 South Dakota.

10 The draft permits include a UIC Class III
11 area permit for injection wells for the in-situ
12 recovery of uranium and a UIC Class V area
13 permit for deep injection wells for disposal of
14 treatment of in-situ recovery process waste
15 fluids.

16 The EPA is also proposing an aquifer
17 exemption approval for -- in connection with the
18 draft UIC Class III area permit. We are here
19 today to listen to your comments on these area
20 permits and aquifer exemption.

21 The public comment period is open until
22 May 19th, 2017. Today is the last of five
23 hearings that we've held in relation to this
24 project. The first was in Valentine, Nebraska
25 two weeks ago; we had hearings in Rapid City on

1 Monday and Tuesday; and yesterday we had
2 hearings in Hot Springs.

3 In a moment, Ms. Shea will explain in a
4 little bit more detail about the project that is
5 being proposed today. But before I turn it over
6 to her, I just want to explain a little bit
7 about how the hearing will work today.

8 We will take testimony from 2:00 to 5:00
9 with a possibility of a short break, and then we
10 will take an hour break from 5:00 to 6:00, and
11 then come back and take more testimony from 6:00
12 to 8:00. I will call speakers to the microphone
13 up here if you have filled out a card at the
14 registration table. So if you would like to
15 speak and have not filled out a card, please do
16 so.

17 When it is your turn to speak, please state
18 your name before you begin your testimony. In
19 order to be fair to everyone, we will limit
20 testimony to five minutes each. We will signal
21 to you when you have one minute left to speak
22 with a yellow triangle. And then when your five
23 minutes is up, the red stop sign will be lifted,
24 and I will ask you to complete your testimony.

25 Please try and be respectful of the time so

1 that everyone who wants to speak has the
2 opportunity to do so. Please try to be as
3 succinct and on point as you can. If I find you
4 are straying from the topic at hand, I will
5 interrupt and ask that you please return to the
6 issue before us.

7 If we have time at the end and everyone has
8 had the chance to speak who wants to and you
9 have more to say than the five minutes you were
10 given, then I will allow folks to come back up
11 and finish their comments.

12 After you finish your testimony, members of
13 the panel may ask clarifying questions. We are
14 not here today to explain the basis for the
15 proposal -- the notice does that -- nor can we
16 engage in back-and-forth discussion of the
17 proposal or respond to your comments during this
18 hearing.

19 The purpose of the hearing is to receive
20 your input. We will consider and then respond
21 to all comments received during this hearing as
22 well as all written comments in the final
23 permits and aquifer exemption determination. As
24 I said, we will not be answering questions
25 during the hearing.

1 We are recording the hearing today, so be
2 assured that your comments will be considered.
3 The court reporter sitting to my left will be
4 preparing a transcript of today's proceeding
5 that will be available for anyone who wants to
6 see it. The transcript is part of the record
7 and will be included in the docket for this
8 matter.

9 The docket is where EPA collects materials
10 it has considered in its action, including
11 public comments. The docket is available on the
12 internet for review, or you can review a hard
13 copy in Denver's -- EPA's Denver office. The
14 transcript of this hearing will also be
15 available on the docket.

16 If you have written comments of your
17 testimony, please give a copy to our staff at
18 the registration table, or you can leave it here
19 with me. This will be helpful as the court
20 reporter prepares the transcript. If you have
21 other written comments or supporting
22 documentation, you may also leave that with us,
23 and we will make sure they are entered into the
24 docket for this action.

25 You also may submit written comments

1 directly to the docket through May 19th.
2 Instructions for submitting comments can be
3 found at the registration table.

4 Once the final permits are issued and the
5 aquifer exemption determination has been made,
6 anyone who participated in these hearings,
7 either through oral testimony or written
8 comments, has the right to appeal the Agency's
9 decision to the Environmental Appeals Board.

10 At this time, I'll turn it over to Ms. Shea,
11 who's going to provide a little bit more
12 background and information.

13 MS. SHEA: Good afternoon, everyone. Thank
14 you so much for coming to our public hearing
15 today.

16 I'm just going to give as brief a
17 presentation as I can to kind of explain the
18 background and context for the comments you're
19 going to hear today, and explain a little bit
20 about the permit requirements that we're asking
21 you to comment on.

22 First, I would like to talk about the
23 Underground Injection Control program so you
24 understand what we do in our program. This
25 program is authorized under the Safe Drinking

1 Water Act. Its mission is to protect
2 underground sources of drinking water from
3 injection through injection wells.

4 An underground source of drinking water is
5 defined in the UIC regulations as an aquifer or
6 portion of an aquifer which supplies any public
7 water system, or which contains a sufficient
8 quantity of groundwater to supply a public water
9 system, and currently supplies drinking water
10 for human consumption, or contains fewer than
11 10,000 milligrams per liter total dissolved
12 solids.

13 The UIC program classifies injection wells
14 into six classes based on the type of injectate
15 and the purpose for injection. The two classes
16 we'll be talking about today are Class III,
17 which is for the in-situ recovery of a mineral
18 deposit, in this case uranium, and then a Class
19 V, which is -- Class V deep wells, which inject
20 into or above an underground source of drinking
21 water, in this case for the disposal of treated
22 ISR waste fluids. Our regulations allow us to
23 exempt a portion of the USDW if it meets certain
24 criteria.

25 As Judge Sutin said, we issued two draft

1 area permits on March 6, 2017. I guess I
2 already talked about the first and second draft
3 permits. So the Class III area permit is for
4 injection wells for in-situ recovery of uranium
5 from the Inyan Kara aquifers.

6 And then the second is a Class V area permit
7 for deep injection wells that will be used to
8 inject treated ISR waste fluids after they are
9 treated to meet radioactive and hazardous waste
10 fluids standards, and that will be injected into
11 the Minnelusa aquifer.

12 The EPA is also proposing an aquifer
13 exemption in connection with the Class III area
14 permit that will exempt the uranium portion --
15 uranium-bearing portions of the Inyan Kara group
16 aquifers in that area where the Class III
17 injection wells will be injecting for the
18 purpose of mobilizing the uranium in the ore
19 deposit so that it can be recovered.

20 The EPA also did three other documents that
21 we are taking comment on. One was a draft
22 Environmental Justice Analysis document. The
23 second is a Cumulative Effects Analysis
24 document, which looks at the effects of all the
25 injection wells under the area permit. And then

1 a draft document explaining the process and
2 consideration of our tribal consultation
3 process.

4 We began tribal consultation a couple years
5 ago, sent out an invitation letter. And at that
6 time, eight tribes responded, and we've met with
7 seven of the tribes. We are expecting to
8 continue our consultation process further,
9 hopefully meeting with additional tribes. And
10 we will not issue any final draft permit
11 decisions until our tribal consultation process
12 is complete.

13 And we are requesting review and comment on
14 all of the documents, and they can be found on
15 our website. And the public notice has that
16 website, and the public notice is sitting on
17 that table over there.

18 There are other agencies that regulate the
19 Dewey-Burdock site. One is the Nuclear
20 Regulatory Commission, which has issued a
21 license for the site. The South Dakota
22 Department of Environment and Natural Resources
23 has proposed a large-scale -- a large-scale mine
24 permit which regulates the whole site. They
25 have not yet finished their public review

1 process.

2 The Bureau of Land Management has a plan of
3 operations, and I don't know the status of that
4 plan of operations yet. And then there's
5 another draft permit or proposed permit from the
6 DENR for the groundwater discharge permit for
7 the land application and the treated ISR waste
8 fluids on the surface in case the Class V
9 injection wells cannot be permitted or used or
10 do not dispose of the full volume of waste
11 fluids that need to be disposed of.

12 So this shows the map of the Dewey-Burdock
13 area. I just have to figure out what -- there
14 we go. It's -- this is the permit boundary. It
15 lies along the South Dakota-Wyoming border here,
16 and this is the border between Fall River and
17 Custer Counties. There are -- there's the Dewey
18 area -- Dewey area, and the Burdock area.

19 There are four proposed wellfields in the
20 Dewey area and ten proposed wellfields in the
21 Burdock area. The color codes here that show
22 the outline of the ore deposits are based on
23 which Inyan Kara aquifer the ore deposit is
24 located in. And then these dots are the
25 proposed locations for the two deep Class V

1 injection wells.

2 This is the Cheyenne River running just
3 south of the site, and then it travels further
4 down to where we are today in Edgemont. And
5 Beaver Creek is a tributary to the Cheyenne
6 River. Pass Creek is also a tributary, but it's
7 not shown here because it's not -- it doesn't
8 flow all year round, so it didn't make it onto
9 this map. But it's there.

10 So this slide gives an idea of what the
11 wellfield layout will be. These -- this grid
12 pattern is the pattern of injection wells and
13 production wells. The injection wells will be
14 used to inject the lixiviant, which consists of
15 the groundwater from the Inyan Kara Aquifer with
16 carbon dioxide and oxygen added in order to
17 mobilize the uranium, and that fluid will be
18 brought to the surface through a production
19 well. So that's the grid you're seeing here.

20 This line of wells on the outside of the
21 perimeter are monitoring wells, and I'll explain
22 more about them in a different slide. And then
23 this dashed green line is the aquifer exemption
24 boundary, which is located 120 feet outside of
25 the perimeter monitoring well.

1 So I just wanted to talk a little bit about
2 the quality of the Inyan Kara aquifers.
3 Naturally occurring Inyan Kara groundwater
4 outside of the wellfields is naturally high in
5 sulfate, manganese, and in some places iron.

6 In order for it to taste good to drink, it
7 has to be treated with reverse osmosis. In the
8 area where the uranium deposits are located, the
9 wells there also show high levels of gross
10 alpha, radium, and radon.

11 So it can be treated for drinking to remove
12 these, but you still will get the gross alpha,
13 radium, and radon if you take a shower or
14 launder your clothes. So the radioactive decay
15 series of uranium eventually results in radium,
16 which quickly decays to radon and daughter
17 elements which emit alpha radiation.

18 Human skin can block alpha radiation, so
19 it's not a threat to you outside your body, but
20 if you were to breathe in the radon gas, it does
21 decay inside your lungs, and that's the danger
22 you hear from radon. So there's an increased
23 risk of wells in this area for radon exposure.

24 This is a vertical cross-section through the
25 Inyan Kara aquifers, and I color-coded the

1 uranium deposits to match the maps. So you can
2 see that the red are in the lower Chilson, the
3 green in the Upper Chilson, and then the blue
4 were in the Lower Fall River. And this is the
5 vertical extent of the proposed exemption area.

6 And then once again, the exemption -- I have
7 lost my -- there it is. I guess it takes awhile
8 to warm up. So this is the proposed boundary,
9 120 feet outside of the perimeter monitoring
10 well ring.

11 This diagram is kind of a cartoon of the ISR
12 process. And I talked about, the lixiviant is
13 injected into the injection wells, pulled
14 through the uranium ore deposits, pick up the
15 uranium, and then brought to the surface through
16 the production wells, taken to the processing
17 plant where uranium is removed from the
18 solution, and then most of the water comes back
19 to be recycled through the uranium ore deposit,
20 and more oxygen and CO2 is added.

21 So you're hearing about a maximum pumping
22 rate of 8,000 gallons per minute. Most of that
23 water does -- is recycled back, but a
24 percentage, 1 to 3 percent for most of the time,
25 is bled off. And that's the amount of water

1 that would be lost from the Inyan Kara aquifer
2 by this process.

3 If the EPA ever does issue a final permit,
4 Powertech would not automatically be allowed to
5 start injecting and recovering uranium. There
6 are a number of tests required to characterize
7 the geology and hydrology for each of the
8 wellfields that you saw.

9 And the crucial question being answered by
10 all the data that they have to collect and that
11 we would analyze is, can the uranium-bearing
12 fluids be contained both horizontally inside
13 this ore-bearing injection zone and also
14 vertically?

15 And the major test that will provide us that
16 information is a wellfield pump test. So this
17 line demonstrates the water table over most of
18 the Dewey-Burdock area. The wells actually flow
19 to the surface.

20 During a pump test, the water table is
21 lowered into what we call a cone of depression.
22 And if this is possible to maintain through the
23 pump test, that shows us that the groundwater --
24 let's see. Sorry about that. I forgot which
25 slide my arrow is, my arrow drawing. So that

1 demonstrates that the groundwater can flow -- be
2 contained by flowing into, towards the wellfield
3 area.

4 Then we also look at the response in the
5 overlying and underlying monitoring wells during
6 the pump test. And if we don't see any change
7 in water level in these wells, then that tells
8 us that the confining zone is good and the
9 injection fluids can be contained vertically.

10 So under wellfield operation, we would
11 expect to see the same type of behavior. These
12 are the perimeter monitoring wells. And to
13 demonstrate horizontal containment, we would see
14 the water tables lowered.

15 If it starts to rise, that's an early
16 warning system that possibly we're losing
17 containment here, and then we have to change the
18 pumping arrangement and recovery -- injection
19 recovery arrangement in order to keep horizontal
20 control of these.

21 And then the overlying and underlying
22 monitoring wells are monitored throughout the
23 process through groundwater restoration until
24 the groundwater is restored.

25 So these arrows just demonstrate that the

1 permit requires that injection interval
2 groundwater is always flowing in towards where
3 the wellfield is in order to contain the
4 injectate from moving away from the wellfield.

5 So once again, this is -- just talks about
6 how there are numerous requirements for --
7 requirements for rigorous geologic and
8 hydrologic characterization in both the Class
9 III and the Class V permits, to show that
10 injection activity will not cause migration of
11 injectate into underground sources of drinking
12 water.

13 And the Class III permit requirements
14 include -- there's several of them, but the
15 major ones that I wanted to talk about is
16 Powertech has to show a map of all the plugged,
17 abandoned exploration drill holes, the historic
18 boreholes you've heard about.

19 We want to see a map of that located within
20 the perimeter monitoring well ring for each
21 wellfield, and then identify which of those that
22 have to be replugged because they were leaking.

23 And then we want to see, also, copies of any
24 new or historic drill logs that have been
25 annotated to indicate there was evidence of a

1 fault or a fracture or a joint for any of the
2 drill holes located inside the perimeter
3 monitoring well ring.

4 UIC regulations do allow us to approve ISR
5 activity in the areas where there is a breach of
6 confining zone. But in these situations, extra
7 monitoring is required on these breaches to make
8 sure that the fluids are not moving vertically
9 out of the zone.

10 So this represents a breach through the
11 confining zone. This is the ore deposit that
12 would be developed. We would look -- we would
13 add extra monitoring wells in this area to make
14 sure that no contamination is moving through
15 each of the confining zones.

16 Then after uranium recovery is completed,
17 the draft permit requires that once wellfield
18 restoration is also completed and approved by
19 the Nuclear Regulatory Commission, then
20 Powertech has to start implementing its proposed
21 post-restoration monitoring plan --
22 post-restoration monitoring plan. It's hard for
23 me to say.

24 This plan we would look at before the
25 wellfield pump tests have to begin because we

1 have to -- we want to see a boundary
2 downgradient of the wellfield. These arrows
3 represent the direction of groundwater flow.

4 And we would have Powertech choose where
5 they want to put a boundary of monitoring wells
6 so that we can have them monitor any contaminant
7 movement out of the wellfield that might occur
8 after groundwater restoration is complete.

9 Because the final compliance boundary is our
10 aquifer exemption boundary here, the underground
11 source of drinking water lies outside it but the
12 permit requires that no ISR contaminants may
13 move across this aquifer exemption boundary into
14 the underground source of drinking water.

15 We want to find out if there are any
16 contaminants before they get to the aquifer
17 exemption boundary, so Powertech would choose a
18 good location for this monitoring boundary and
19 then monitor it to detect contaminants.

20 If contaminants are detected, then they have
21 to have a backup line of monitoring wells, and
22 they have to do some sort of remediation to
23 clean up the source inside the wellfield and
24 then also the contamination. And then this
25 would be an iterative process.

1 If contamination continues to move, then
2 there is another line of monitoring wells and
3 requirements for cleanup until finally they can
4 demonstrate that no contaminants would cross the
5 aquifer exemption boundary.

6 I probably just -- oh, to do this, we do
7 have to establish baseline constituent
8 concentrations, and that would be the permit
9 limit. We want to make sure that no
10 contaminants cross in concentrations above
11 what's already there.

12 The baseline monitoring would begin before
13 the wellfield pump tests, and then the strategy
14 for developing the baseline and for monitoring
15 the compliance boundary is based on RCRA, the
16 Unified Guidance, which is the statistical
17 analysis that establishes baseline and detection
18 of contaminants. And this strategy has been
19 implemented for many years by the RCRA program
20 and has proven successful, so we're relying on
21 it here too.

22 Now, the deep Class V injection wells, we
23 are requiring the most protective, stringent
24 well construction requirements that we have
25 under our regulation, and that's for Class I

1 wells, to make sure that the wells are
2 well-constructed and will not allow leakage
3 through confining zones or from the well.

4 And there are also numerous requirements for
5 rigorous geologic and hydrologic
6 characterization to verify the injection
7 activity does not migrate -- cause migration of
8 injectate into USDWs.

9 The other important aspect is that Powertech
10 must demonstrate that in the area where the
11 injection wells are located, the Minnelusa
12 aquifer is not an underground source of drinking
13 water, which means that it would have total
14 dissolved solids above 10,000 milligrams per
15 liter.

16 We do have a historic sample from an oil and
17 gas test well in that area that showed in that
18 location the Minnelusa is 16- to 21,000
19 milligrams per liter. Let's -- if it turns out
20 that once the wells are drilled and the
21 Minnelusa aquifer has total dissolved solids
22 below 10,000 milligrams per liter, then it would
23 be an underground source of drinking water and
24 no injection would be allowed. The EPA would
25 not authorize any injection into that.

1 The Class V permit does require the
2 injectate is treated to below radioactive waste
3 standards and hazardous waste standards.

4 This is a geologic cross-section that just
5 shows the Minnelusa formation through this area.
6 This would be the Minnelusa injection zone.
7 There is a thickness at the base that acts as a
8 confining zone between the Minnelusa injection
9 zone and your Madison aquifer. We wanted to
10 make sure that there's adequate confinement so
11 that no contaminants migrate down to the
12 Madison.

13 And then we would also look at this upper
14 confining zone that protects the Hunkpapa and
15 Sundance aquifers as well as the Lakota, the
16 Chilson, and Fall River aquifers of the Inyan
17 Kara.

18 I think I'm going to skip ahead to the next.
19 I can come back to this. So the Minnelusa is a
20 very interesting aquifer. It actually has --
21 its character changes across this boundary
22 called a dissolution front. Close to the
23 outcrop, the overburden of the Minnelusa is not
24 heavy enough to overcome the pressure of the
25 Madison aquifer. Go back to this slide.

1 The Madison is a very high-pressure aquifer,
2 and as you know, down here it flows to the
3 surface, and the Minnelusa aquifer is not a
4 high-pressure aquifer.

5 So in areas where the overburden is thin,
6 the Madison aquifer has actually pushed through
7 and dissolved out this anhydrite mineral that
8 composes most of the Minnelusa aquifer.
9 Anhydrite is a sulfate, a calcium sulfate, and
10 it's what causes the Minnelusa to have high
11 total dissolved solids and not be a USDW in
12 areas farther away from its outcrop.

13 So around Hot Springs, this anhydrite has
14 been dissolved away by the Madison limestone.
15 And you can see what's called a collapsed
16 breccia in the Minnelusa formation that you can
17 actually see at the surface in Hot Springs.

18 And there are a lot of drinking water wells
19 of good quality near Hot Springs because there
20 is -- all the anhydrite has been removed. And
21 the zone of active dissolution of the anhydrite
22 is what is shown along this line here.

23 So above, to the northeast of this
24 dissolution front, you get good quality --
25 drinking water quality in the Minnelusa aquifer.

1 Downgradient of the dissolution front, you still
2 have all that anhydrite mineralization, and
3 that's what causes the Minnelusa not to be an
4 underground source of drinking water in the
5 Dewey-Burdock area.

6 This slide shows that same dissolution zone
7 that was shown in red, and it kind of covers
8 this area. Hot Springs is here. The
9 Dewey-Burdock area is over here. All these dots
10 are either oil and gas wells or test wells that
11 were drilled looking for oil and gas. And many
12 of them actually, in the record on the state
13 website, contain the drilling logs.

14 And I was able to -- I looked at all of
15 these wells, and you can actually see there's
16 thick Minnelusa with lots of anhydrite down in
17 this area. It's starting to fade away. Many of
18 these well logs show missing anhydrite and thin
19 Minnelusa, and then up here it's -- the
20 Minnelusa is much thinner and there's no
21 anhydrite. So this also can be verified looking
22 at oil and gas wells. I think I probably talk
23 about that in this slide, too.

24 So the Class V permit requirements, we want
25 to verify the integrity of that Minnelusa

1 confining zone by looking at the drill logs of
2 the deep Class V wells themselves and then the
3 plugged oil and gas wells shown in the previous
4 slide.

5 Also looking at the groundwater levels of
6 the Minnelusa and the Madison aquifers, as I
7 said, the Madison aquifer is very high-pressure.
8 It has a high groundwater level that's above the
9 ground.

10 The Minnelusa doesn't have as high of a
11 pressure, so we expect to see different levels
12 when we -- when Powertech, if they drill these
13 wells and actually isolate and measure the
14 groundwater levels, we expect to see different
15 water levels in the Minnelusa and Madison
16 aquifers.

17 Then also looking at the sulfate
18 concentration, where we have that anhydrite in
19 the confining zone where you see high sulfate,
20 in that area where there isn't a confining zone,
21 that's where the sulfate is low and it's
22 drinking-water quality.

23 Then also we will look at a comparison of
24 the Madison and Minnelusa water chemistry.
25 Where there is -- where they are separate and

1 have a good confining zone, it's very different
2 water chemistry. But up near Hot Springs where
3 there is no confining zone between the Madison
4 and the Minnelusa, the water chemistry looks
5 very similar, almost the same.

6 I just wanted to mention quickly that there
7 are treatment and storage ponds for the Class V
8 injectate. Radium is the only radioactive waste
9 expected to occur in our ISR waste fluids. As I
10 mentioned, uranium does eventually decay to
11 radium, and that's the longest-lived radioactive
12 element we expect to see.

13 It can be treated and removed from the
14 injectate by mixing it with -- mixing the waste
15 fluids with barium chloride and then putting
16 them into these settling ponds where the barium
17 settles out the uranium. And then it flows into
18 these outlet ponds, and it would flow, then, to
19 the Class V injection well, where it would be
20 expected to meet radioactive waste standards.

21 This is my final slide. I just want to
22 emphasize the importance of our public review
23 process to us. We issue draft permits in order
24 to propose a set of permit requirements that we
25 feel are as protective as we can make under our

1 UIC regulations.

2 But we know that they are not perfect, and
3 we want your input on how they can be made
4 better. Or if they are just not going to do the
5 job at all, we want to hear that, too.

6 Our UIC regs require that we have a 30-day
7 comment period. But as I mentioned, the number
8 of documents we have to review, we thought that
9 we should give everyone more time to review
10 these documents, so our public comment period
11 has gone from March 6th to May 19th, which is a
12 week from this Friday.

13 Our regulations also require us to hold a
14 public hearing if one is requested, but we knew
15 we wanted to hear from as many people as we
16 possibly could, so that's why we scheduled five
17 days of public hearings. And let's get to that
18 now. We want to hear your comments.

19 Jacque is going to record them for us, and
20 then we will respond to those before we issue a
21 draft permit. Thank you very much.

22 REGIONAL JUDICIAL OFFICER SUTIN: Okay.
23 Let's get started.

24 Our first speaker is Bill Curran.

25 BILL CURRAN: Good afternoon. I'm Bill

1 Curran. I have a small hobby ranch.

2 REGIONAL JUDICIAL OFFICER SUTIN: We need
3 you to -- yeah, please. Thank you. That way
4 the court reporter can hear you.

5 BILL CURRAN: I'll start again.

6 Good afternoon. Bill Curran. I have a
7 small hobby ranch up in the general area --

8 COURT REPORTER: I can't hear. I'm sorry.
9 Just pull it up so everybody can hear.

10 BILL CURRAN: Anyhow, I have a small hobby
11 ranch up in the general area of where this
12 mining project is going to take place, so it's
13 kinds of near and dear to my heart. I don't
14 have anybody leasing my land. I do own mineral
15 rights, but I'm not entertaining any offers from
16 mining companies or anything of that nature.

17 I did take an interest in this because it is
18 so close to my property, and it appeared to me
19 that we had a lot of people who were objecting
20 to the project on the basis of the emotion. We
21 had government looking at this with science and
22 saying, Yeah, it looks safe. And it appears
23 that way that most of the permits have now been
24 issued.

25 A few years ago, there was a hearing that I

1 believe the State held. If Susan Henderson was
2 here, I would be able to ask her because Susan
3 has been to every one of these. But I can't
4 remember how many years ago it was. It was up
5 at Rapid City at, I believe, the Ramada Inn.

6 And before the hearing, I went up and down
7 the road and talked to every one of my neighbors
8 and asked them if they were in favor of the
9 project. All of them but one signed a petition
10 in favor of the project. The one that didn't
11 sign it had just moved to the area and didn't
12 know anything about it up or down or whatever.

13 What I did want to get across today to these
14 folks who have come here to hear us is that all
15 of the local people are in favor of it. The
16 people most directly affected by this mining
17 project are in favor of it. And I want to turn
18 this petition over to them.

19 They actually are the same -- pretty much
20 the same landowners today that were there then.
21 And like I say, everyone here in the area is in
22 favor of it. I am still in favor of it. I
23 would certainly hope all those were. Thank you.

24 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
25 Mr. Curran.

1 Keith Anderson.

2 Don Matt. Yeah, we'll call him --

3 I'm sorry. You're here. I apologize.

4 Mr. Matt, you'll be next.

5 DON MATT: I had a long walk.

6 KEITH ANDERSON: My name is Keith Anderson.

7 I'm a professional engineer and licensed in
8 South Dakota, Wyoming, and Nebraska. I also
9 live on a ranch 20 miles northwest of Edgemont.
10 I don't think you've heard from a lot of people
11 with sincere concerns about this project over
12 the past several days. I doubt you'll hear from
13 anybody who has more educational background,
14 personal experience, and direct personal
15 interest in the Dewey-Burdock property than I
16 have.

17 I was born and raised on that ranch. It's
18 been in our family since 1908. I moved there in
19 1952, and I've lived there off and on ever
20 since. We have a pretty direct connection to
21 the uranium properties. My dad worked -- went
22 to work in the mines in the late 1950s and 1960s
23 to supplement the ranch income.

24 I worked at the uranium mill while I was
25 going to college to pay for my college

1 education. I got out of South Dakota State
2 University with a degree in engineering and no
3 college debt, so I have been very much involved
4 with the uranium business over the years.

5 My second job after college, I was hired as
6 a hydrologist on the Dewey-Burdock project in
7 1976, and I worked there in various capacities
8 until 1989. Some of you may have reviewed the
9 hydrology work that was done on the
10 Dewey-Burdock property in the 1970s and '80s.
11 That was done by me or people under my direct
12 supervision.

13 The aquifer testing that you guys have
14 reviewed in considering this permit was aquifer
15 testing that I did. So I feel I have direct,
16 firsthand knowledge of the project and
17 hydrogeology and geochemistry of this project.

18 You've heard from a lot of people who have
19 sincere emotional concerns about this project,
20 and I understand that. In a lot of cases,
21 people are fearful for things they don't
22 understand.

23 I guess what I would hope would be that this
24 country, these kinds of decisions are based on
25 the facts and on knowledge and not based on fear

1 and emotion.

2 So I appreciate your taking the time to
3 listen to us today, and I just want to speak in
4 support of granting these permits for Powertech.

5 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
6 Mr. Anderson.

7 Mr. Matt.

8 DON MATT: My name is Don Matt. I am
9 currently living in Edgemont, South Dakota. I
10 have a relative whose first wife grew up here.
11 She died of cancer at 37. The only thing he
12 will say is, "Don't drink the water."

13 As a young man, I lived a few years in Utah
14 where I had to comfort a roommate from
15 St. George, Utah, who lost a 19-year-old brother
16 to cancer. Children there used to write their
17 names in the nuclear fallout dust covering
18 automobiles.

19 A July 2017 eleven-page special report to
20 *The Oregonian* printed there were an estimated
21 400,000 atomic veterans ordered to be nuclear
22 guinea pigs under or near atomic test blasts and
23 the reluctance of government experts to
24 acknowledge ongoing health problems.

25 Salt Lake's *Deseret News* spent years

1 documenting the culture of insensitivity and
2 denial of first the Atomic Energy Commission and
3 then the Nuclear Regulatory Commission, a
4 cosmetic change that made little actual
5 difference.

6 More recently, I knew a Rapid City,
7 South Dakota photographer who loved vacationing
8 in the beautiful Utah areas with the
9 aftereffects of hundreds of uranium mines and
10 nuclear tests. He died of cancer.

11 I could not resist picking up a copy of the
12 book titled, *The Day They Bombed Utah* by John
13 Fuller. The list of nuclear problems and losses
14 is mind-numbing. These countless examples
15 demonstrate an ongoing culture of denial and
16 insensitivity that carries forward to this day.

17 I can see why regulators would block out
18 things which could cost them their jobs and
19 bring billions of dollars in lawsuits.
20 According to paid engineers working for the
21 Chinese uranium mining company Azarga, they and
22 the Nuclear Regulatory Commission are best
23 qualified to look after our safety and welfare.
24 Not everyone always sees it that way.

25 In 2007, then-candidate Barack Obama stated,

1 quote: "The NRC is a moribund agency that needs
2 to be revamped and has become captive to the
3 industries that it regulates." That's according
4 to a Keene, New Hampshire *Sentinel* interview."

5 A ProPublica website article dated
6 December 26, 2012 on Wyoming in-situ mining
7 notes, quote: "The Safe Drinking Water Act
8 forbids injecting industrial waste into or above
9 drinking water aquifers, but the EPA issued what
10 are called aquifer exemptions that gave mine
11 operators at the ranch permission to ignore the
12 law. Over the last three decades, the Agency
13 has issued more than 1500 such exemptions
14 nationwide, allowing energy and mining companies
15 to pollute portions of at least 100 drinking
16 aquifers."

17 A USGS study published by Otton in 2009
18 found that, quote: "To date, no remediation of
19 an ISR operation in the United States has
20 successfully returned the aquifer to its
21 baseline."

22 Tree rings throughout the West provide an
23 historic record of droughts lasting as long as
24 30 years. This would drastically argue against
25 proposed calculations of water recharge.

1 When tritium from nuclear fallout moved
2 through groundwater in the Inyan Kara group at
3 15 feet per day, it indicated possible flaws in
4 the rocks or porous lenses. This data was
5 either ignored or explained away.

6 A recent paper said the 1963 data showing
7 much faster velocity is an unresolved issue.
8 That's from the South Dakota Academy of
9 Science's Proceedings, Volume 93, 2014, page 28.

10 Recent experiments by Duke University
11 published on October 26, 2010 showed placing CO2
12 underground for greater than 30 [sic] days,
13 quote, "could pose a risk to overlying fresh
14 groundwater," unquote.

15 They further said, quote: "Potentially
16 dangerous uranium and barium increased
17 throughout the experiment -- throughout the
18 experiment in some samples." This showed
19 underground storage of CO2 creates carbonic acid
20 and is not harmless.

21 No exemption should allow placing nuclear
22 waste in waters which could be used by
23 agricultural animals and thus indirectly by
24 humans. Thank you.

25 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,

1 Mr. Matt.

2 Isaiah Cox.

3 ISAIAH COX: My name is Isaiah Cox, and I am
4 a student at Hot Springs Middle School.

5 And I see how mining the uranium would be
6 good. It could open up some jobs, but it can
7 also close some jobs, too. For instance, like
8 ranchers and farmers, well, you need water, you
9 know, and I've heard that this will poison the
10 water. So that's not really good, so -- yeah.

11 Well, animals and plants need water, so --
12 and also, I'm not sure if any of you have heard
13 of Evans Plunge, but it is pretty much a water
14 park, you know. Lots of people go there, and
15 it's one of the -- it's a pretty big company, I
16 guess -- well, water park.

17 But if they continue with this, it will
18 close down along with many other places, closing
19 other jobs, too. And yeah, some people told me
20 to, like, speak from my heart, not like write
21 anything down. So yeah, forgive me if I mumble
22 and, like, shake or freeze. Okay.

23 But anyway, I asked somebody earlier today
24 what the -- what it would be used for. And they
25 said that they don't really know, but it will,

1 like -- they were kind of, do it -- well, they
2 were like, do their research, and then, like,
3 they will get, like, a client, but they don't
4 really know what it would be used for now.

5 So I would -- well, I'm against it. I hope
6 you can see this, and yeah -- and, I guess,
7 so...

8 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
9 Mr. Cox.

10 Kurt Barker.

11 KURT BARKER: Hi. My name is Kurt Barker.

12 I'll put it right next to my mouth. How
13 does that sound? Your Honor, Ms. Shea,
14 Mr. Minter, thank you for the opportunity to
15 speak. I commend you for the patience and the
16 discipline to sit through these hearings.

17 And I can't help but think about the priest
18 who was responsible for the construction of this
19 building. He used to have a very clever way of
20 acknowledging people who volunteered for very
21 difficult tasks. He would say, "There are a lot
22 of ways to get to heaven, you certainly didn't
23 pick the easiest one."

24 And I think if he were here today watching
25 what you are doing, he would probably be

1 thinking that again. So I just hope the folks
2 here from all over remember that. But thank you
3 for hosting this and entertaining all of our
4 comments.

5 I grew up in the Edgemont area. My wife and
6 I live west of Edgemont and west of the project
7 area. And as ranchers, we work every day to
8 triangulate concerns about water, grasslands,
9 and cattle in a way that builds soil health,
10 because soil health and water health is the
11 basis of our livelihood and our future.

12 Accordingly, if this project wasn't
13 protective of our health and environment and
14 especially our water, we wouldn't consider
15 supporting it.

16 So as you reflect on the many hours of
17 testimony that you've heard so far, four days
18 already, I believe, because this is the fifth
19 day, and the testimony you'll continue to hear,
20 I would simply ask that you consider the real
21 stakeholders in this process, the people who
22 live here and ranch in the project area.

23 As a stakeholder myself, two thoughts come
24 to mind. The first one is the Nuclear
25 Regulatory Commission has established that --

1 and I'm going to quote -- that "there are no
2 environmental impacts that would preclude the
3 licensing of this facility." That is a very
4 succinct, clear statement: "There are no
5 environmental impacts that would preclude the
6 licensing of this facility."

7 The second thought that comes to mind is a
8 broader thought, and that is that uranium is the
9 fuel for nuclear power, of course, and nuclear
10 power is the only carbon-free, large-scale
11 source of power that's available 24 hours a day,
12 seven days a week.

13 So as I think of these two points -- no
14 environmental impacts and fuel for the only
15 carbon-free, large-scale source of power -- I
16 wonder, shouldn't the property rights of the
17 owners of this fuel be considered?

18 This uranium is not the property of the
19 horse in town over by Hot Springs or the amateur
20 environmentalists who were shipped in from
21 outside the county. It's the property of the
22 landowners, of which I am one.

23 The economist Adam Smith said: "The first
24 and chief design of every system of government
25 is to maintain justice to prevent the members of

1 society from encroaching on one another's
2 property or seizing what is not their own."

3 Powertech -- Powertech has complied with all
4 the requirements of the law. They have prepared
5 and submitted a full-blown environmental impact
6 statement. They have prepared and submitted a
7 site-specific supplemental impact statement.

8 The scientists at NRC and at your agency
9 have reviewed both and concluded, again, there
10 are no environmental impacts that would preclude
11 licensing of the facility. Or, to use words
12 that Adam Smith might have used, it would say,
13 There are no environmental impacts that encroach
14 on another's property.

15 So typical teams at your Agency and at the
16 NRC have determined that this project doesn't
17 encroach on our neighbors, but despite that,
18 you've been asked to deny property rights that
19 help make this country great. That's what it
20 amounts to.

21 So we urge you to deny the request of others
22 to encroach on our property. I urge you to
23 issue the final permits for this project. And
24 once again, I thank you for your very kind and
25 polite attention.

1 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
2 Mr. Barker.

3 Mike Koopman.

4 MIKE KOOPMAN: Good afternoon.

5 Let me start with, I was born here in
6 South Dakota. South Dakota gave me an
7 education, which I followed up at the School of
8 Mines. And because of that background, I first
9 started -- when I left college, I worked for
10 Homestake, and then I was offered a chance to
11 join the -- what would be Wyoming's version of
12 the DENR, which they call -- over there it's the
13 DEQ.

14 And I think I'm probably unique in that
15 being -- having a background in soft rock, I am
16 a geological engineer. I am also a registered
17 professional geologist. I went to work for the
18 state of Wyoming. Some of these in-situ
19 projects were interesting over there.

20 And some of the early mines were, as you can
21 imagine with any early mining thing, there was
22 heap leach things where they would take the
23 minerals, put them on a rubber sheet, pour that
24 full of acid, and then pull off the remaining
25 solution. That was okay. That was in its

1 infancy.

2 And as in-situ went along, the department I
3 was with, we were responsible for looking at
4 more and more in-situ practices. In fact, we
5 were responsible for being part of the siting,
6 part of the construction oversight, part of
7 the -- watching the production returns,
8 monitoring that, and in some cases part of the
9 closure.

10 So I think I'm probably one of the few, if
11 any, here in South Dakota that has seen the
12 aspect of uranium from not only the enforcement
13 aspect, the environmental aspect.

14 I also worked in the industry and Shirley
15 Basin out of Casper for many years. So I've
16 seen the loop of industry and regulation, et
17 cetera.

18 From what I've seen, from the projects that
19 I was involved with, directly permitting and the
20 mine plans, et cetera, this project being
21 proposed right here is probably the optimum from
22 what I have seen as far as safety, as far as
23 recovering most, if not all, of the solution
24 that's being injected.

25 Some of those early ones were not

1 necessarily covered by state and federal regs,
2 which is why some of them were pretty bad. This
3 one has a whole slew of constraints. And the
4 opinion by anybody who has looked at this so far
5 from a scientific point is that it's valid, it's
6 safe, and it will work.

7 And I can tell you, having had hands-on,
8 been in the trenches checking pipes that carry
9 solutions and everything, I can tell you that
10 it's valid and it's safe. And from what I can
11 see from this project, this one would be far
12 above my expectations.

13 So I know emotions run high when you start
14 talking about water and its availability, but I
15 would encourage the EPA and others involved here
16 to look at the background scientific
17 information, what it supports.

18 If you need, step to those agencies -- and I
19 would say one would be that agency in Wyoming
20 who has done several of these -- to find out,
21 you know, how things went over there.

22 Do you have a hiccup once in a while? Sure,
23 you have a hiccup once in a while, as with any
24 mining operation.

25 AUDIENCE MEMBER: That's poison. That's not

1 a hiccup. That's poison.

2 REGIONAL JUDICIAL OFFICER SUTIN: Excuse me.
3 No commenting during folks' testimony.

4 MIKE KOOPMAN: I see a lot of you mouthing
5 objections out there, but I doubt that you've
6 been in the trenches.

7 So I would encourage you to proceed with
8 permitting, to do all you can so this thing gets
9 going soon. It would have a -- such an economic
10 benefit in Fall River and Custer Counties, and
11 we could surely use all the above.

12 Thank you very much.

13 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
14 Mr. Koopman.

15 Gardner Gray.

16 GARDNER GRAY: I was going to -- I had a
17 list of what I was going to talk about, some of
18 which I spoke yesterday, so I decided not to
19 repeat that. And so these are not necessarily
20 immediately connected except in the larger
21 picture. And I just -- I won't take much time,
22 I just want to briefly talk about some of those
23 points.

24 I've been reviewing the Black Hills
25 hydrology study, which I mentioned yesterday.

1 And what it says is that the Madison and the
2 Minnelusa are heavily utilized. The Minnelusa
3 is one the largest aquifers in the area, and
4 it's utilized heavily. It isn't a -- it isn't
5 an aquifer that no one uses and is unusable.
6 It's being used, and yet they want to put all
7 this waste into the Minnelusa.

8 The Black Hills -- oh, the Black Hills water
9 is a recharge, actually, for outside water, for
10 example, in the Ogallala. That's pretty
11 general. The hydraulic connection between
12 aquifers exists, and there are two -- these two
13 aquifers, the Madison and the Minnelusa, are
14 connected to surface water resources. They are
15 not disconnected.

16 Part of the -- a major part of the success
17 of this operation is the non-transmissibility
18 between aquifers. Well, this shows that there
19 is transmissibility, that they do connect and
20 that they're hydraulically connected.

21 There are numerous fractures -- it goes on
22 to mention there are numerous fractures and
23 solutions, and openings that have created
24 extensive secondary porosity and permeability.
25 Just another example of these aquifers are not

1 impermeably protected.

2 Both the Madison and the Minnelusa aquifers
3 are potential sources for numerous large
4 artesian springs in the Black Hills and
5 hydraulic connection between the two aquifers in
6 other locations.

7 So once again -- I mean, this is the Black
8 Hills hydrology study. I didn't write it. I
9 just read some of it. I am not a hydrologist,
10 so I don't make up my own opinions. I look at
11 this. And if that's what it says, then I think
12 these guys know what they are doing.

13 Apparently, because I'm opposed to this, I'm
14 an irrational, emotional person, but I would
15 take issue with that. I'm concerned for the
16 water in the area, not just for east of here,
17 but for here.

18 If you lose your water, you won't have to
19 worry about raising cattle or growing grass
20 because you're not going to be able to do it.

21 There are ranchers in the Nebraska outfit
22 that have sold their land, sold their cattle,
23 and moved out of town because the contamination
24 in that area from that ISL mining.

25 And it's been mentioned already that there

1 is no ISL mine that has ever been cleaned up.
2 It's just a fact. I don't make these things up.
3 I read them, and if I -- if I honor the source,
4 then that's what it means. That's what it says.

5 There's an ISL mine in Texas called -- I
6 think it's the Texas Dome. Same old, same old.
7 People in the area, they take their water out of
8 the tap. Well, it's radioactive.

9 And I take issue with the statement that
10 only -- that radium is the only solution, only
11 toxin that is a result of this mining when the
12 NRC clearly states in their application from
13 this company, Azarga, that it's not true.

14 And as a final statement, I would simply say
15 that Azarga doesn't have to -- Azarga/Powertech
16 doesn't have to clean this up. They aren't
17 required to clean it up because it can't be
18 cleaned up. You cannot clean up radioactive
19 material. It remains radioactive. It might be
20 in a solid, it might be energy, but it's
21 radioactive. You can't lie down next to it, you
22 can't put it in your mouth without getting into
23 trouble. You can't do those things.

24 They want you to believe that irradiation is
25 safer; all these X-rays we have, they are safe.

1 Well, they are cumulative. Oh, I'm running out
2 of time, aren't I? Well, I already talked a
3 little bit more than I figured I would. So very
4 quickly let me end with this.

5 The NRC says that Powertech only has to meet
6 a standard that says A-L-A-R-A, as low as
7 reasonably achievable. It doesn't say they have
8 to clean it up. It says they only have to reach
9 that measure of -- as whatever I said. I'm
10 getting too old to do this.

11 AUDIENCE MEMBER: You said, "Reasonably
12 achievable."

13 AUDIENCE MEMBER: "As low as reasonably
14 achievable."

15 GARDNER GRAY: There you go, as low as
16 reasonably achievable. It just kind of went out
17 of there.

18 That's no guarantee at all. That's just not
19 a guarantee. It's not enough. I will end with
20 that, and thank you very much for your
21 attention.

22 REGIONAL JUDICIAL OFFICER SUTIN: Thank you
23 very much, Mr. Gray.

24 Sophia Black Cloud.

25 SOPHIA BLACK CLOUD: (Speaking in indigenous

1 language.)

2 My name is Sophia Mahpiya Sapa. My
3 traditional name is Flower Woman. I am from the
4 Hunkpapa Tribe, Standing Rock Sioux, the Great
5 Lakota Nation.

6 I just quickly want to start with saying
7 that on my way in, I wanted to pick up some of
8 the local sage, and I pulled over to grab some
9 to have with me while I spoke. And right in
10 that bush of sage was this turtle shell from
11 Edgemont here in the front of your city.

12 And so it looked like it hadn't been --
13 there was still some fresh flesh on it. And so
14 I filled it with the sage from the bush that I
15 found it in and want it tested. I want to know
16 if this turtle died of natural causes, things
17 like that. This is exactly what we're here to
18 fight for today, is to make sure these
19 four-legged relatives of ours don't go unspoken
20 for.

21 So I have a lot that I want to say. I have
22 been here for the last four days of these
23 hearings, and I've heard everywhere from
24 scientists, doctors, teachers, people from
25 Rapid City, reservations, other states, and

1 anywhere from our four-legged friends and in
2 between.

3 So I'd like to start with two things before
4 I go into my reading, and it was the man that
5 first spoke about the uranium first here
6 earlier. He's probably paid by Powertech to say
7 those things. I've heard many speak on what he
8 spoke on, and it just -- I've heard the
9 scientists, I've heard the doctors, I've heard
10 landowners, so on and so forth.

11 The second landowner that was in favor of
12 the mining should not have the right to
13 jeopardize or -- you know, he was in favor of
14 the landowners have the right to make that
15 decision for all of us to start mining, and he
16 should not have the right to jeopardize drinking
17 water for the entire Black Hills. Should not.

18 We are the original landowners. Also,
19 scientists, teachers, doctors, Environmental
20 Protection Agency, so on and so forth, we are
21 the original on that.

22 So then I'd also like to say before I go on
23 to my reading that these companies, large
24 corporations, they continue today to steal our
25 resources. For instance, in the Black Hills,

1 we're all talking about our gold, uranium,
2 plutonium, coal, oil, trees by the thousands
3 daily, and the effect of all of that is our
4 water.

5 All of our resources are being stolen and
6 sold still. You have tried to buy us, and we
7 have said no. You pay anyways, but we don't
8 want it. We don't want your money. We want our
9 Paha Sapa, Black Hills. Paha Sapa.

10 No uranium. We don't want it. We didn't
11 want it then. We didn't want it in the '50s,
12 '70s, the 2000s, and we sure the hell don't want
13 it now. We didn't want it when you showed up
14 here on your boats. We don't want it. We
15 didn't need it then, we don't need it now.

16 So I'd like to give you the turtle with the
17 sage in it. And then I'm going to read. It's
18 called, "A Gathering of Sioux in Honor of Chief
19 Sitting Bull."

20 Sitting Bull said: "We must teach the
21 children to read and write so the white men
22 cannot cheat us, and we must hold onto our land
23 until the young folks can speak English and look
24 out for our own interests."

25 A gathering of Sioux in honor of Chief

1 Sitting Bull, 1890, December 15th. Hunkpapa
2 Lakota Sioux and other tribal police conspired
3 with the U.S. Cavalry to attack Chief Sitting
4 Bull and those who fought to defend him.

5 On that day, our most honored of all chiefs
6 was held and killed by Sioux warriors. This was
7 the day respect also died for our people.

8 It is our way to mourn for one year when one
9 of our relatives enters the spirit world.
10 Tradition is to wear black while mourning our
11 lost one. Tradition is not to be happy, not to
12 sing and dance, and enjoy life's beauty during
13 mourning time. Tradition is to suffer with the
14 remembering of our lost one and to give away
15 much of what we own and to cut our own hair
16 short.

17 But Sitting -- but Chief Sitting Bull was
18 much more than a relation to just one family.
19 He represented an entire people, our freedom,
20 our way of life, all that we are. And for 127
21 years, we as a people have mourned our great
22 leader.

23 We have followed tradition in our mourning.
24 We have not been happy. We have not enjoyed
25 life's beauty. We have not danced or sung as a

1 proud nation. We have suffered remembering our
2 great Chief and have given away -- given away
3 much of what was ours.

4 And tens of thousands of Lakota Sioux have
5 worn they hair short for 127 years and blackness
6 has been around us for 127 years. During this
7 time, the heartbeat of our people has been weak,
8 and our lifestyle has deteriorated to a
9 devastating degree.

10 Our people now suffer from the highest rates
11 of unemployment, poverty, alcoholism, drug
12 addiction, and suicide in the country. We as a
13 people are to blame for this loss of respect
14 within our own nation and for the continuing
15 destruction of our own people. Our only excuse:
16 Ignorance.

17 Sitting Bull foresaw our stupidity, but we
18 would not listen. Sitting Bull said what would
19 become of our people, and it has. If we are to
20 deal with these problems, we must look into
21 their origin, our present-day leadership.

22 The new tribal government system has failed
23 to reveal our nation, has failed to protect our
24 people. It is a disgrace to all past Lakota
25 leaders. But the response --

1 REGIONAL JUDICIAL OFFICER SUTIN: Ms. Black
2 Cloud, your time is up.

3 SOPHIA BLACK CLOUD: -- for the
4 destruction --

5 REGIONAL JUDICIAL OFFICER SUTIN: Please
6 wrap up.

7 SOPHIA BLACK CLOUD: -- of our people's lives
8 must be shared with our second form of
9 leadership, our traditionals -- chiefs, medicine
10 men, pipe carriers. These traditional leaders
11 must accept the fact that they too have not
12 represented their position as they should be
13 represented.

14 The people, the men, and children have been
15 paying the price for inadequate leadership since
16 the death of Chief Sitting Bull. This is the
17 kind of leadership that our people can no longer
18 tolerate, and I'm going to finish up.

19 Are we to continue to die? Are we to
20 continue to watch our children suffer without
21 realizing what must be done without standing
22 together as one force to protect our children's
23 lives? Have we as a people given up? Simply,
24 no, for a whole new generation is born to carry
25 out our great Chief's instructions.

1 We are the new generation, and we will make
2 a change. We will lead ourselves. We will
3 rebuild our nation's respect, and the great
4 Lakota nation will rise again.

5 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
6 Ms. Black Cloud.

7 Miengun Pamp.

8 MIENGUN PAMP: Hi. My name is Miengun Pamp.
9 I spoke two times so far.

10 Obviously I'm here in opposition to the
11 whole project. You know, there's just a lot to
12 say about it, so I don't think I'll sit here all
13 day and spew big, huge emotional speeches at you
14 or anything. I don't have one today.

15 It's just common sense honestly at this
16 point. Like, no matter how foolproof something
17 is, there's always going to be a problem, and
18 when you're dealing with something to this
19 extent, you know, the dangers of it, it's a
20 little ridiculous to take that chance.

21 Like a hiccup, you know, a little bump in
22 the road, that's millions of people. That's,
23 you know, hundreds of lives that would be gone
24 so fast.

25 It's a generational problem. Like

1 genetically, you would be affected, your kids
2 are affected, anything that survived after that
3 would be affected. It's, you know, just a
4 little idiotic to let it go, you know, oh, it'll
5 be fine. But if it's not, there's nowhere to
6 go. There's no out. You wouldn't even know it
7 was happening until it was too late.

8 Just figured I'd say how I felt one last
9 time, and everybody have a nice day.

10 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
11 Debra White Plume.

12 DEBRA WHITE PLUME: Can you hear me? Okay.
13 Greetings, Mitakuyepi. Greetings to you of the
14 Environmental Protection Agency of the United
15 States of America. My name is Debra White
16 Plume. My Lakota name is Wioweya Najin Win.

17 I'm Oglala Lakota from the Pine Ridge
18 homelands, maybe 60 miles south of here. And I
19 am Cheyenne on my mother's side, Northern
20 Cheyenne, who escaped from prisoner of war
21 status at Crawford, Nebraska back in the day.

22 Now, I'm familiar with Crawford, Nebraska
23 because that's where there's an in-situ leach
24 uranium mine owned by Cameco Incorporated. I'm
25 the lead plaintiff against that corporation.

1 They want to renew their license and start a new
2 mine, North Trend; a new mine, Three Crow; a new
3 mine, Marsland. One of the men who used to work
4 for Cameco at Crow Butte, he's part of Powertech
5 and Azarga.

6 I don't trust these uranium corporations
7 because I've been in this battle for the
8 protection of sacred water for 27 years now.
9 When we filed against Cameco, we were the first
10 ones to challenge a uranium corporation in
11 America in 17 years. That was ten years ago.
12 It's been 27 years now since anybody challenged
13 a uranium corporation.

14 Now, this place where we stand here today is
15 our ancestral territory. You're not the first
16 peace commission to come out here. One came 149
17 years ago and negotiated the 1868 Fort Laramie
18 Treaty, the 1851 Horse Creek Treaty with our
19 ancestors. That treaty retained a land base and
20 water right where we stand here today. This is
21 my people's land.

22 We call the Black Hills He Sapa. To us it's
23 the heart of everything that is. Now, I don't
24 want you to let Azarga encroach on our ancestral
25 territory. This is not just a little community

1 of Edgemont. This is not just a little county.
2 This is ancestral territory of the Lakota
3 nation, the Cheyenne nation, the Arapahoe
4 nation.

5 Now, you heard about a hiccup. For us -- I
6 mean, what happened in Hanford is not a hiccup.
7 Fukushima is not a hiccup. At Cameco, their
8 deep disposal wells leaked disposal waste for
9 four years before they found that leak. Now,
10 these mines up here, they leaked in the disposal
11 wells, too.

12 I don't want you to approve a permit that's
13 going to allow them to punch 4,000 holes through
14 our aquifer. I don't want you to give them a
15 permit that's going to allow them deep disposal
16 wells. Because as much as the industry stacks
17 the deck, bringing specialists here on the
18 payroll, they are still not perfect science
19 about uranium mining.

20 Ask the people at Fukushima, ask the people
21 at Hanford, ask the people living nearby Cameco,
22 and they'll tell you.

23 This is a public comment period, not a time
24 for scientists and experts to come up here and
25 impress each other with their big words. This

1 is time for everyday people like me to come and
2 speak to you government officials.

3 I'm a mother, I'm a grandmother, I'm going
4 to be a great-grandmother in November, the first
5 time I'm going to be a great-grandmother. I
6 want my takoja tiwahe's baby to come into a
7 world where there's clean water. I want her to
8 stand here someday as a great-grandmother,
9 welcoming her great-grandchild into a world
10 where there's clean water. I'm going to tell
11 you, to the Lakota people, water is our first
12 medicine. We know it's finite.

13 It came here from the Star Nation. The
14 water that's here is the water that was here
15 when the dinosaurs came. There is no more
16 water, people. I ask you to look at your papers
17 when you go home and think about the Minnelusa.
18 That's a Lakota word. It means swift water, the
19 Lakota aquifer. That's another Lakota word.

20 These waters are named by our people because
21 we were here since time immemorial, and we want
22 to be here far into the future. These deep
23 disposal wells, they are maybe not just for
24 Azarga. Maybe they want to bring in Cameco's
25 waste from Wyoming, from Nebraska.

1 You don't know because they didn't line that
2 out, did they? They didn't line that out in
3 their application. I don't trust these people.
4 They are fat, taker corporations, and they want
5 to encroach on us.

6 Corporations come in to little communities
7 that want jobs, nice homes, a future for their
8 children. That's what Powertech and Azarga did.
9 They came in here. Now they have people
10 standing up saying we're encroaching on
11 Edgemont.

12 This water is for 16 million people. Beaver
13 Creek, Pass Creek, they flow into the Cheyenne,
14 which is 30 minutes from my home, which flows
15 into the Missouri, which I drink from.

16 REGIONAL JUDICIAL OFFICER SUTIN: Ms. White
17 Plume, your time is up, so I need you to wrap up
18 your comments, please.

19 DEBRA WHITE PLUME: Okay. What I want to
20 say is that the -- I mentioned the treaty. I
21 want to mention the United Nations Declaration
22 on the Rights of Indigenous People, which says
23 governments must have free and prior informed
24 consent of Native peoples before they bring
25 development in, and we didn't give that.

1 Our Oglala Sioux Tribe said no to uranium
2 mining, no to radioactive waste coming in, and I
3 say that, too, on behalf of my grandchildren, my
4 coming generations, all the animals and the
5 standing silent nations, the plants that we need
6 here.

7 So I ask you to take this home. Take this
8 home to your offices, share your paperwork,
9 share your paperwork and study it. And don't
10 think of this as a science experiment because we
11 live here. So I thank you for coming, and I
12 thank you for listening to me.

13 (Speaking in indigenous language.)

14 REGIONAL JUDICIAL OFFICER SUTIN: Clarence
15 Anderson.

16 CLARENCE ANDERSON: My name is Clarence
17 Anderson. I've lived in this area most of my
18 life. I began working at the uranium mill in
19 1960, and I worked there until we shut it down
20 in -- shut the property down in 1989. I had
21 raised my family here. I have four children,
22 nine grandchildren, I have eleven
23 great-grandchildren that have been raised in
24 this area.

25 And I want you to know that in all of the

1 work experience I've had, one thing or another,
2 I have no concern whatsoever about the
3 technology being used on this project. I also
4 want you to understand that I was able to raise
5 a family here because of the income that was
6 provided at this job for me and hundreds,
7 hundreds of other people that have worked
8 through this uranium industry over the years.

9 I think that one of the things that come to
10 light for me, we were operating in the '50s,
11 '60s, and '70s, the old mining time when we
12 would have went underground, extract the ore,
13 and then bring it into the mill and, press it
14 and grind it, leach it, and strip it.

15 The same thing that's going to be done by
16 Powertech, but it'll done in place. It won't be
17 the disturbance to the ground, the material.
18 When we were going to mine, we would have
19 drained the aquifer. We would have had to pump
20 the aquifer dry to get in there and mine.

21 This won't be the case here. There is a lot
22 of talk about the water permit and how much
23 water is going to be extracted in this. Valois
24 said earlier, a big share of that will be put
25 back into the aquifer, so -- but I just want to

1 say that I think this is an extremely safe
2 method of operation, and I'm very strongly in
3 favor of it. Thank you.

4 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
5 Mr. Anderson.

6 Ingrid Grimes. Ingrid Grimes?

7 Jim Grimes?

8 Nancy Kile.

9 NANCY KILE: My name is Nancy Kile. I live
10 in Sioux County, Nebraska. I was born and
11 raised in Crawford, Nebraska area. Please
12 accept these as my comments to the formal
13 hearing record.

14 Deceptive language is snake oil,
15 descriptions like uranium recovery, and the use
16 of simple soda pop solutions. Then to top it
17 off, hiding radioactive waste in deep injection
18 wells that pass through groundwater aquifers.

19 Who will cover the cost of having hazardous
20 training for rural emergency responders,
21 contaminated workers, equipment? Who will clean
22 up license areas soils that contaminated -- that
23 are contaminated because of toxic wasteland
24 applications?

25 Who will monitor the spray discharge of the

1 evaporation pond poisonous wastewater as it
2 settles on the surrounding fields and prairie?

3 Count on hazardous delivery spills occurring
4 on your county roads. Be ready to evacuate your
5 home when it does. If you doubt it, come to
6 Crawford. I'll give you a tour. The casual
7 transport of yellowcake is lethal to wayside
8 communities. Boreholes and toxic flush
9 extraction and mining yellowcake endangers
10 downstream communities far into the future.

11 Don't let Cameco bring hazardous poisonous
12 waste up here. Don't do your neighbor like
13 that. Keep it in the ground. No aquifer
14 exemptions.

15 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
16 Ms. Kile.

17 It's 3:30. We're going to take a ten-minute
18 break. We'll start up again at 3:40.

19 (A recess was taken from
20 3:30 p.m. to 3:40 p.m.)

21 REGIONAL JUDICIAL OFFICER SUTIN: Okay.
22 We're going to get started, if folks could take
23 their seats.

24 Our next speaker is Tonia Stands.

25 TONIA STANDS: Okay. I just want to start

1 with this. And I forgot to give this to you
2 yesterday. And I meant to tell you a history,
3 and I was telling that story yesterday about
4 this water. This water is very sought after
5 water. I have two more. So -- okay.

6 My name is Tonia Stands, and I'm from
7 Oglala, South Dakota, right east of here. And
8 I'm a full-blooded Oglala Lakota woman from
9 Oglala. And I was raised by my grandmas who
10 have direct connection with this land.

11 I was trying to tell you yesterday. And as
12 a child, I was brought into this area for many
13 different reasons throughout the year. My
14 grandparents, they would come in a certain way
15 into the Black Hills, into these doors, and
16 we're supposed to come in like that.

17 And so what I was telling you yesterday was,
18 we weren't citizens of this country even though
19 we're the original people to the Black Hills.
20 If you want to talk about stakeholders, you want
21 to bring that into such an area, I mean, that's
22 just like the audacity, you know, an insult to
23 us that you have more, I guess, privilege over
24 us.

25 And you're using your white privilege to

1 come over us and our religious beliefs in
2 connection to this land and what's under this
3 land. So you want to -- you want to talk about
4 stakeholders, you're insulting us. We were
5 forced out of here.

6 You know, they named Harney Peak after
7 William K. Harney because the Standing -- Chief
8 Standing Rock went over there to hunt, and he
9 left his family there, women and children. And,
10 you know, General Harney came in and slaughtered
11 that whole camp, so they named our sacred site
12 after him.

13 And that's Inyan Kara, under all -- from
14 that top of this peak, the highest point, that's
15 connected to the bottom of this. And you can't
16 take us away from that because we were born --
17 and you guys, go to Wind Cave. There's a nice
18 little sign there that says we came out of
19 there. And you'll acknowledge that.

20 And then come in here and have the audacity
21 to say you're a stakeholder. This land was
22 stolen. This land was taken. And we were
23 forced out to a reservation. And we were
24 disconnected. And we didn't have religious
25 freedom. Look at this church, where we all get

1 to stand in. You want to be respectful? Let's
2 go stand in our church.

3 This is our church, this whole Black Hills
4 area, from the top to the bottom. And the
5 reason I know this is because my grandmas, we
6 come from Oglala, and we gather -- we gather our
7 plants and fruits and vegetables, and everything
8 is provided for us here. That's our agreement
9 with this land and the entities, the elements of
10 this land. Those are our relatives.

11 We come out of -- we come out of Wind Cave,
12 and -- and you want to take that apart and
13 discombobulate that and misconstrue it. But we
14 are the original people to this land. This is
15 the center of the universe, the whole world.
16 The whole universe started right here, and we
17 have those in our language. We have those
18 connections still.

19 And we have an oath and a duty to protect
20 the sacred because they don't have a voice.
21 They are considered animals, and no, those are
22 our relatives. They have moms and dads, and
23 they drink out of these creeks. And this whole
24 area is our -- is our home. We're the real
25 stakeholders here.

1 And I come from Oglala, and we still make
2 our trek here and gather our fruits and our
3 vegetables, our food and our medicines. And you
4 know what? Whew. I -- I have a friend that
5 lives in this area, and I gathered some tipsila,
6 which is our fruit. They are all deformed.
7 They are all sick. So we can't come here and
8 gather our food there. They destroyed it, and
9 they want to keep destroying it.

10 They don't tell you -- they don't tell the
11 public about their evaporation ponds and their
12 leaks and their spray mists. And those blow
13 right into the Cheyenne River.

14 And you know what? I live in this range
15 where my dad lives right here by Red Shirt by
16 Cheyenne River, and my mom lives in Oglala, and
17 we get exposed to this uranium.

18 The old pit mine, my dad's house, which I
19 just slept in last night, the radon levels are
20 coming up from the basements. Independent
21 studies -- they are coming up from the basement
22 when it rains, the precipitation. We're already
23 at risk, and this is going to continue.

24 So what I'm going to say is this: Our
25 Oglala people came here, and you're detaching us

1 from that. We can't ever come back here.

2 Here we go, she cut me off. But I want to
3 offer my water to you, and tell you this: That
4 we got this water over here in Hot Springs.
5 They call it kidney water, and it comes right
6 from this aquifer, Inyan Kara, and this is
7 sought-after water. It's healing water. And
8 this is the same water these guys here want to
9 contaminate and claim.

10 You know, and we learned a lot from Crow
11 Butte. They won't clean up their -- out of the
12 their area of mining site, and neither will you.

13 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
14 Ms. Stands.

15 Judy Schumacher.

16 JUDY SCHUMACHER: I didn't know my number
17 was going to come up so quick.

18 I'm Judy Schumacher. I live down in Provo,
19 South Dakota. I don't agree with this mining.
20 I don't want it. It's dangerous at best. I
21 grew up in Buffalo, South Dakota, and back in
22 the -- I'm going to say late '50s to -- probably
23 into the late '60s, maybe early '70s, they did
24 some uranium mining up there.

25 And they left these little divots in the

1 ground where they dug, and these little divots
2 collect water. Well, in dry years, when these
3 little divots do get a little bit of water in
4 them and the cows drink out of them and the
5 sheep drink out of them, they get -- black cows
6 will turn white, sheep lose their wool. They
7 are down to their skin, get sunburned.

8 My husbands and I lived for quite some time
9 in eastern South Dakota in a little town called
10 Brandon. Well, it's not so little anymore. But
11 anyway, they had a nuclear power plant right on
12 the edge of the Sioux River.

13 When they turned it on, they turned it off
14 immediately because it melted down. There still
15 are no trees growing there. There is no grass
16 growing there. The river is polluted. There
17 were a lot of people just south of where that
18 power plant was who died from cancer.

19 My daughter was born there, and we lived
20 there for three years until she was three. When
21 she was 22 years old, she had to have a
22 hysterectomy because she had cancer.

23 My father-in-law worked in this mill that
24 was over here. He died from pancreatic cancer.
25 Soft tissue cancer is caused by radioactivity.

1 If you get too many X-rays, you will die from
2 soft tissue cancer.

3 Now, who's going to buy this uranium you're
4 wanting to dig up? What's going to happen to
5 it? What's going to happen with these sediment
6 ponds when they dry up? Are -- you know, is it
7 still going to be able to rain in them and get
8 all of that uranium active again?

9 What about other people's wastewater, is it
10 going to be allowed to be dumped down the holes?
11 Nobody is answering these questions. Nobody can
12 answer them.

13 It's just -- it's scary. I've seen way too
14 much. And yeah, I'm emotional. I have a right
15 to be emotional. Thank you.

16 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
17 Ms. Schumacher.

18 AUDIENCE MEMBER: We're moms, too.

19 REGIONAL JUDICIAL OFFICER SUTIN: Janie
20 Stein.

21 JANIE STEIN: Good afternoon.

22 Nuclear energy is not carbon-free. Remember
23 that these regulations are only as safe as the
24 people that are using the regulations and doing
25 them well and doing them perfectly.

1 AUDIENCE MEMBER: Amen.

2 JANIE STEIN: The science in the 1950s told
3 us that uranium mining, the way they did it then
4 was safe. Let's talk to the Dine people about
5 that.

6 Let's talk to the original people of the
7 land about justice and environmental justice.
8 Let's see what they have to say about it.

9 We've been hearing testimony the last few
10 days. I've sure learned a lot. And we've heard
11 from many experts, the facts and figures and
12 statistics about why this is a bad idea to
13 continue this project, the Dewey-Burdock uranium
14 project.

15 We have just begun to hear about treaty
16 rights, and I've just begun learning about
17 treaty rights and all the issues that are
18 connected with them.

19 My husband and I are learning about a lot of
20 different connections with all of these issues.
21 And as a matter of fact, all waters are
22 connected, and we are all downstream when it
23 comes right down to it. So this is everybody's
24 issue.

25 Treaties between nations are the highest

1 laws of the land. Treaties are still in place
2 which ensure that the Black Hills are the lands
3 of the Lakota people. They should be consulted,
4 and they are the ones to approve the cultural,
5 archaeological, and religious surveys that take
6 place, and they should have the final say about
7 what goes on here.

8 When I was at Standing Rock, I saw firsthand
9 the blatant racism and brutality that gave rise
10 to the genocide of the first people of this
11 land. This attitude continues in our country
12 today and is evidenced by this project, which is
13 attempting to force a dangerous and unnecessary
14 threat to our land and water, forcing this upon
15 we, the many people who do not want it. This
16 project will benefit only a few who will profit
17 in money, but risk the loss of their souls. We
18 are all downstream.

19 To reiterate, this is Lakota land. The
20 United States government should honor the
21 treaties with them. This project should not go
22 forward at all unless and until the old mines
23 have been cleaned and tribal-approved cultural,
24 religious, and archaeological surveys take
25 place, and true, genuine consultation with the

1 tribes happens.

2 For the sake of the land, for the sake of
3 the water, to maintain the integrity of the
4 Environmental Protection Agency, for your own
5 and our own personal humanity, for the sake of
6 your children, our children, future generations,
7 I urge you to do everything in your power or
8 influence to shut this project down immediately.

9 And my T-shirt reminds us all today that
10 only we can resist fascist liars. Let's
11 remember that in the coming days.

12 Thank you very much.

13 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
14 Ms. Stein.

15 Sylvana Flute.

16 SYLVANA FLUTE: (Speaking in indigenous
17 language.)

18 Good afternoon. I greet all of you with a
19 good heart. I am Sylvana Flute of the Sisseton
20 Wahpeton Oyate from northeast South Dakota.
21 These are my nephews. We are members of the
22 Oceti Sakowin, Seven Council Fires of the
23 Dakota, Lakota, and Nakota Nation.

24 I walk in both worlds as a Dakota with a
25 drop of a wasichu French blood. I am an

1 indigenous person of North America. I am a
2 human being. I am a mother, a grandmother, and
3 a life-giver.

4 I come to help protect all our future
5 generations. I come to remind you there is no
6 such thing as a safe uranium system. Think or
7 research Fukushima, Japan that continues to leak
8 radiation into our earth's ocean, contaminating
9 and killing living creatures in the ocean, and
10 it's spreading this way.

11 I also come before you as an endometrial
12 cancer survivor, a very rare cancer, a new
13 cancer that is not hereditary. And I actually
14 had to go to Mayo Clinic for radiation,
15 chemotherapy to kill the cancer. I have to get
16 it cut out every time there is a tumor. And
17 I've had four major surgeries to remove the
18 tumor and any cancer margins.

19 We must think of our children. We must also
20 protect those who are never given a choice, the
21 wildlife and living creatures in the water.
22 Uranium causes cancer. When the uranium leaks
23 into the water, you will have no drinkable water
24 here. Cancer rates and death rates will
25 increase.

1 I am against the uranium mining and waste
2 disposal. We all -- we all that come from
3 Sisseton Wahpeton are against it. We come here
4 to support all our people. I want all our
5 children to have a future, to be with your loved
6 ones. And think about what's going on here
7 because our children are our future. And
8 without that water, what future will they have?

9 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
10 Ms. Flute.

11 Abrey Flute.

12 ABREY FLUTE: (Speaking in indigenous
13 language.)

14 My name is Abrey Flute. My traditional name
15 is Hiha Sila, Owl Boy. And I think out of all
16 the Native Americans here, I'm probably the most
17 colonized maybe.

18 But you know, we had a voice from the future
19 come up here, and it was that young man right
20 there, you know. He showed us that he's
21 fighting for his future in this, you know,
22 county, in this town.

23 You know, he's a warrior, an akicita, in my
24 book. For him to come up here and say the
25 things he said, you know, it moved me, you know.

1 And it showed me that, you know, this is a right
2 fight to fight for.

3 And I would like to also say that I'm pretty
4 sure, you know, you guys aren't bad people, you
5 know. We're all human. We all bleed, and we
6 all, you know, need essential things, like
7 water, food, and certain things.

8 I'm pretty sure that this is a tough job to
9 come up here and do, but I would like to say
10 that, you know, I answered the call to Standing
11 Rock and stood with my people there. I answered
12 the call here and stood with everybody here.

13 And I just wanted to say that oil and
14 uranium should not be coming out of the ground.
15 Mother Earth did not ask for this. You know,
16 you can come up with any scientific thing. You
17 can come up here with papers and say, you know,
18 the facts, you know, things that have come up.

19 But the future is created by those that are
20 searching for the uncertain and that are
21 discovering the unknown. And go ahead and put
22 down, you know, this uranium project, but who's
23 to say that, you know, the people who are
24 willing to govern it and oversee it will be here
25 in 15 years, 20 years when young men like him

1 have to fight for decisions that adults chose
2 for them and that they didn't choose themselves.

3 So, you know, I just want to say, just
4 wanted to say that and hau.

5 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
6 Waniya Locke.

7 WANIYA LOCKE: (Speaking in indigenous
8 language.)

9 I grew up on the Missouri River. I am from
10 Standing Rock. I have been a part of this
11 preliminary hearing, and I sat in some of rounds
12 like this before against NAGRPA.

13 I want to reaffirm that you guys are guests
14 within our home territory. We are Lakota-Dakota
15 people, and we should be able to address you in
16 our own language. So I ask respectfully that
17 you bring a Lakota-Dakota translator when you
18 come to our home.

19 I ask that you stand here with us and have
20 an honest, open ear because there's only 2.5
21 percent drinkable water.

22 I ask again that you have tribally approved
23 archaeologists, tribally approved surveyors, and
24 understand that we are fighting for the future,
25 and we should not be going up against our own

1 government agencies to protect our future.

2 I also ask that you take into consideration
3 everything that has been happening within our
4 world. Hanford, Washington, is the same time as
5 during your hearings. That's direct evidence.
6 Crow Butte is direct evidence. This is within
7 our land, our territory, where we, me and my
8 people, have been here for thousands and
9 thousands of years.

10 And the EPA is supposed to protect the
11 environment. And I don't think it's right that
12 I have to stand up against the EPA granting
13 permits. I feel that you guys should stand with
14 the people. I feel that you should protect the
15 environment and the future that comes with this.

16 We as adults make these decisions, and I can
17 honestly say I go home every night to my
18 children, and I look at my children and say, I
19 stood up for you today.

20 I stood up for my daughter who is going to
21 carry my grandchildren. I stood up for her
22 daughter that's not even here yet, as a
23 matriarch, as the backbone.

24 Respect our sovereignty and recognize us as
25 human beings and understand that we have a say.

1 Even if we did not grow up in Edgemont, this is
2 still our land.

3 (Speaking in indigenous language.)

4 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
5 Martha -- Marta Bates.

6 MARTIN BATES: Not Martha.

7 REGIONAL JUDICIAL OFFICER SUTIN: Sorry.
8 Martin. I apologize. I'll put my glasses on.

9 MARTIN BATES: You're not the first that's
10 called me Martha Bates. Martin Bates is my
11 name.

12 Thanks for having this hearing again and an
13 opportunity for us to be here. And I just want
14 to read this. I went out to the George S.
15 Mickelson Trailhead this morning. I looked
16 around down there for any acknowledgement of the
17 people that were here before, and I didn't see
18 anything on the sign.

19 So I looked online to see if there was
20 anything here, and I found a page that wasn't a
21 state page, it wasn't a South Dakota page. It
22 was a user of the trail that apparently built a
23 site.

24 And this person who likes trails,
25 Rails-to-Trails, and he's ridden the trail in

1 its entirety. My wife and I rode part of it,
2 but we got tired by the time we got to the top
3 of that hill outside of Deadwood a few years
4 ago.

5 It said bicycling the length of the George
6 S. Mickelson Trail, it's easy to see why the
7 Black Hills remain sacred land to the Lakota
8 nation. He said Lakota nation, I understand
9 it's really Oceti Sakowin and some others.
10 Consider that. So I wanted to just remind you
11 of that.

12 I looked all over on the state page. And I
13 actually called the state coordinator, and she
14 called back while I was listening to other
15 testimony, so I will find out what she says
16 about that. But I think at least this state
17 is -- irrelevant to this, but at least the State
18 of South Dakota should acknowledge the people
19 that were here before.

20 Everything that they have starts with Custer
21 and Wild Bill somebody or other, and that's the
22 history. They act as though that's the
23 beginning of time here, and the railroad, of
24 course, is the beginning.

25 Well, I can't introduce myself in my

1 original tongue. I don't even know the creation
2 story, the creation place that I came from.
3 Most of my blood is from Scotland area and what
4 used to be called Britain. I think I'm mostly
5 Brit, not sure because I don't have the history.

6 A couple thousand years ago, Christianity
7 started, and that's what this is here, symbols
8 and icons around here of Christianity. Only
9 2,000 or so years ago that began. That's an
10 Abrahamic religion. Judaism started about
11 1,000 years before that possibly, around there.
12 So we really don't have history.

13 I want to speak a little bit to the folks
14 from Caucasia. I say that lightly, the
15 Caucasians here. I want to say that our -- we
16 don't have that history. Perhaps we're a little
17 jealous of that, that we can't go back and find
18 our original place of origin. The people that
19 testified here can.

20 And our job now is to, as descendants of
21 these people, is to do whatever we can -- sorry.
22 I feel strongly about things, and this comes
23 up -- to allow us to protect their stories and
24 their history. And that's -- that's why I'm
25 here.

1 There might be -- somebody told me, a Lakota
2 person actually told me that there might be a
3 good way for -- my wife and I were up at
4 Standing Rock, and we learned a lot. We heard
5 stories of this sort of thing everywhere, I mean
6 everywhere. They are trying to -- I won't talk
7 about those, but everywhere.

8 We've been traveling through the
9 Transwestern pipeline, we've ben traveling the
10 old flat, we've been traveling to the outside of
11 the -- the edge of the Grand Canyon, where they
12 are going to take uranium across the mainland
13 again and again. Put that out there.

14 So I keep hearing stories, so we went to
15 hear and to see them first place -- firsthand.
16 So we can't do it again. We shouldn't step on
17 the rights of other people who have acquired the
18 land, bought from whoever stole it during those
19 broken treaties. We can't do it. We can't do
20 that that way.

21 I say -- when I was in the Air Force, we
22 had -- it was that time of the sexual harassment
23 training that we had to do, and I was part of
24 the conducting of it. We had a saying: No
25 means no. If a person -- if a potential sexual

1 partner says "no," it means no. And there's
2 real wisdom about that.

3 And so I say that if the people that hold
4 this land sacred say "no," "no" means no. "No"
5 means no. "No" means no.

6 (Audience chanting.)

7 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
8 Mr. Martin.

9 AUDIENCE MEMBER: Mni Wiconi.

10 REGIONAL JUDICIAL OFFICER SUTIN: Next if we
11 can Rube Tifft. Rube Tifft. Sorry I got that
12 wrong.

13 RUBE TIFFT: I was wondering what this is.
14 Okay. Okay. This is a test hole cap. This is
15 from the '40s and '50s and the '60s. In that
16 duration, when they dug a test hole, they dug a
17 foot down, and they set this in the hole, and
18 then they piled some dirt on it.

19 As you can see, this one had a couple little
20 holes poked in it so it wouldn't hold no water,
21 you know, but this was a test hole plug.

22 What I would like to bring to -- I was
23 raised on a ranch east of Sturgis 60 miles,
24 Township 7, Range 13. Well, in -- I was
25 probably 17 when my dad allowed them to dig

1 three uranium test holes.

2 Well, the one was out on what we call the
3 hay field, which was 160 acres, and there was a
4 lake bed there that covered at least 40 acres,
5 grew some grass, ducks there. Growing up, I
6 mean, there was set water year-round.

7 Well, they dug a hole in the corner of it.
8 Well, the first thing that occurred was the
9 neighbor a mile north, he had a deep well, and
10 he was all pissed off because his water started
11 pumping up that mucky stuff from the test -- the
12 lake bed, and eventually ruined his well. And
13 he passed away bitter at my dad for allowing it
14 to happen.

15 Well, as the years went by, that 40 acres,
16 which there was an ancient Indian campground,
17 teepee rings, and it was known as an area where
18 they used to camp, because that water always
19 drifted, and it filled the dam, irrigation.

20 It went dry, turned into white soil, prairie
21 dogs took over, the dam started going dry. I
22 started digging dugouts to water the cows. The
23 grass didn't put up the hay.

24 Our house well was 30-foot deep. One of the
25 nicest wells you'd ever drink water out of. It

1 started going -- getting lower and lower, so I
2 dug one 40 feet deep, but that didn't help much
3 because it was shallow water and, well,
4 eventually Bud Wenzel, which his actual name was
5 Walter Wenzel, he -- he passed away. The family
6 sold their place because they had no water on
7 it.

8 A few years later, Oscar Davidson, he was 5
9 miles east of where they dug that test hole, and
10 he was pumping up mucky water. Well, it just
11 drained that whole lake bed aquifer right down
12 into the deep water.

13 And well, you know, it wouldn't run the
14 amount of livestock that it ran when I was a
15 kid, and by '95, I give up my dream. Quit. And
16 I didn't have a big enough place to go on, and
17 the little place wasn't producing.

18 What scares me is these test holes sit open.
19 They are not filled. If they were filled, it
20 would be different. You start pressurizing it
21 up, water raises, down it goes into the deep
22 water, or maybe it comes up into the shallow
23 water. But you're going to have a problem.
24 Water courses are changed all the time.

25 Homestake changed a lot of water courses

1 over the years. You talk to people that mined
2 in there, well, water courses are changed. It
3 might come up; it might go down. But it's going
4 to affect things.

5 In this area, you've got alkali, which is a
6 form of Epsom salts, selenium. And you got
7 layers. You go along the Cheyenne River, you'll
8 find 6-foot layers of pure -- pure stuff. Well,
9 you dig through that and water caves down in,
10 pretty soon water -- water gets contaminated
11 with that stuff.

12 And these open test holes are an issue. I
13 mean, the one that caved in, why, you could have
14 dumped a car in there before I left. That's in
15 the top. I mean, they went through a 60-foot
16 base in the ground that was full of water. So
17 down it went.

18 Well, all I'm saying is, all these open test
19 holes, I wrote President Trump a letter, and I
20 says, I bet you in ten years, if they do it,
21 I'll bet you a dollar that you can't drink
22 Hot Springs water. So I guess that's my
23 testimony. Thank you.

24 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
25 Mr. Tifft.

1 Edward Starr.

2 EDWARD STARR: (Speaking in indigenous
3 language.)

4 I welcome everybody here that's here for the
5 EPA hearing. My name is Edward Starr. I live
6 in Oglala, and my grandfather has been here for
7 ages and ages. My grandfather, in that time
8 they had no need for any kind of money. Then
9 500 years ago, three boats came, and they
10 brought some people.

11 Along with that, they brought Christians,
12 and what followed them Christians was a person,
13 an anti-Christ. You know what an anti-Christ
14 is. They are the ones that killed a man named
15 Jesus Christ.

16 Now that -- and they -- and they brought the
17 power of the money, the anti-Christ, called it
18 capitalism.

19 I have a dollar bill that I wanted to show
20 you something. We all know, we all seen the
21 pyramid with the eye on top. That eye
22 represents anti-Christ, anti-Christ. And
23 there's 13 layers of rocks here. And those
24 represent the 13 Satanic families. And we've
25 got 13 stripes sitting up here.

1 And if you look on the other side, it's a
2 military emblem. I was in the Army. My cap,
3 first class cap, I had a gold emblem on my head.
4 But on the right side of it, he's holding 13
5 arrows. On the other side is an olive branch
6 with 13 olives on it. And there's a shield
7 right in here, it's got 13 stripes.

8 And right above the head, there's a group of
9 stars. There's 13 of them. And the tail
10 feathers, there's 13 of them. That's what you
11 call capitalism. It has occupied the whole
12 Northern Hemisphere.

13 I went to boarding school, and they told me
14 I was going to be an intelligent, civilized
15 citizen. But I resisted all the way through. I
16 ran away several times from school because I
17 grew up traditionally. I preferred to stay in
18 my -- in that way.

19 But I realize today we are in a spiritual
20 war that started 500 years ago for us. Our
21 Lakota, Dakota, Nakota people and all the Native
22 Americans on Turtle Island that we are standing
23 on are in a spiritual war.

24 When that anti-Christ, this God's eye came,
25 he came with the money. And if you look on

1 that -- they say he has a number 666 on his
2 head. So if you look at this, all of these,
3 anything you buy has that, the mark of the beast
4 on it.

5 Because if you look at a bar code, the
6 first -- there's two long lines in the middle,
7 but there's two more long lines, and at the end
8 there is another long line. And if you take
9 accounting Cobalt, you know that those are
10 sixes.

11 And so someday they are going to put those
12 codes on our skin. And there are 800 FEMA camps
13 that are across the nation, and the one for
14 South Dakota is right here, FEMA camp. And they
15 are building a -- equipping it with coffins that
16 can hold up to five bodies.

17 So if you refuse this mark under your skin,
18 you're going to be sent here, and you're going
19 to die here. And that's coming soon. So I just
20 wanted to say that.

21 I worked in Igloo, South Dakota back in '75.
22 And I got -- I don't know if that's where I got
23 cancer or if it's from the Slim Buttes area.
24 There was 37 holes, test holes there. And they
25 say capping is not -- just this cover right

1 here, that's not capping.

2 Capping is between layers, like that picture
3 you had up here. They force cement between the
4 water and this other sediment, uranium, and
5 that's capping. That's what needs to happen.

6 If that doesn't work, that doesn't work,
7 what happened, the radon, radium will come up.
8 And it happened in the reservation. At that
9 18- -- oh, 1981. We had a sudden death of --
10 SIDS, a lot of babies were dying. The doctors
11 at Pine Ridge Hospital said those are something
12 in the air.

13 REGIONAL JUDICIAL OFFICER SUTIN: Mr. Starr,
14 your time is up, so I need you to wrap up,
15 please.

16 EDWARD STARR: Okay.

17 But the officials heard about it, heard the
18 doctors' statements, and they fired all of them.
19 They transferred them out.

20 But uranium isn't safe, never was and it
21 never will be. We have sacred sites all over
22 here, and all our relatives and ancestors, they
23 are buried all over the Black Hills. And we
24 don't want what happened in Japan, contaminating
25 the whole Pacific ocean now, and we don't want

1 that to happen here.

2 (Speaking in indigenous language.)

3 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
4 Mr. Starr.

5 Charles Kelsey.

6 CHARLES KELSEY: As she said, my name is
7 Charles Kelsey. I live east of Edgemont. I
8 have a small horse training ranch there, and I
9 live near the Cheyenne River. I like to fish
10 there. I eat the fish from the Cheyenne River.
11 I am retired.

12 I retired after 35 years of doing radiation
13 protection. I've worked in several countries
14 and have worked in several states in the U.S.
15 doing radiation protection. In other words,
16 protecting people from radiation. I've done
17 that for 35 years. So I know a lot about it.

18 I've had a lot of experiences with it. I've
19 had experiences where there have been problems,
20 where technical failures, where there had been
21 human errors, and we've had to deal with some
22 problems. But we have, over time, dealt with
23 those problems.

24 And as I say, learned a lot about protecting
25 people from radiation. I've worked in several

1 industries over the years, including the ISR
2 industry to protect people from radiation.

3 I've worked -- in that time, I've worked
4 with many regulators, such as these. I've
5 worked with professionals that have worked in
6 all these industries, and I have -- as I say,
7 I've seen a lot of examples of a lot of things
8 over time.

9 The one -- I have learned a few things about
10 radiation that are not obvious to a lot of
11 people. One thing I've learned is that no
12 matter where I go in this world, and I turn on a
13 radiation detector, the radiation clicks, it --
14 or, the detector clicks. Doesn't matter where I
15 am. That means there is radiation everywhere
16 all the time. There always has been and there
17 always will be.

18 I've also learned that no matter where I am,
19 if I take a sample and have it studied, there's
20 uranium. It doesn't matter where I am, it's
21 always there. And it always has been, so it's
22 just a fact of life.

23 I've also learned that if you look around
24 yourselves, start counting off, that if we're
25 typical of people in this country, you can --

1 you can bet that one in five of us, no matter
2 where we live in this country, we're going to
3 die of cancer.

4 So when you hear of this person or that
5 person or the other person dying of cancer,
6 that's just the way it is in this country. One
7 in five people die of cancer.

8 AUDIENCE MEMBER: We never had cancer.

9 CHARLES KELSEY: Whatever the causes.

10 AUDIENCE MEMBER: We never did.

11 REGIONAL JUDICIAL OFFICER SUTIN: Please
12 don't interrupt.

13 CHARLES KELSEY: Those are just a few things
14 that I've learned in my experience in radiation
15 protection.

16 As I say, I'm retired, and my interest in
17 this community continues to be protecting people
18 from radiation. So I'm here to answer
19 questions, to work with people, to help with the
20 understanding of radiation.

21 And I am here to try to help ensure that
22 this operation, if it goes on, will be done with
23 the concern for people and to protect people
24 from radiation.

25 The one additional thing that I have learned

1 in working with professionals like these is that
2 they really are looking out after our best
3 interest. And I truly believe that whatever
4 their decision is, that that decision will be
5 for our best interest. And I have learned that
6 through 35 years of working with professionals
7 like this.

8 So I'm willing to take their decision and
9 live with it and try to help people around here
10 live with it the best that they can. That's all
11 I have.

12 REGIONAL JUDICIAL OFFICER SUTIN: Thank you
13 very much, Mr. Kelsey.

14 AUDIENCE MEMBER: Not in my area. Not in my
15 area.

16 REGIONAL JUDICIAL OFFICER SUTIN: Excuse me.
17 Excuse me. Please, excuse me. If you are going
18 to make those sorts of comments when people are
19 speaking, I'll have to ask you to leave. This
20 is an area where everyone needs to feel
21 comfortable speaking.

22 Next if we can have Kathleen Bailey.

23 KATHLEEN BAILEY: I have to make a
24 disclaimer. I'm from out of state, but no one
25 shipped me here. I drove up in a 1994 Toyota

1 Corolla with my dog, and I'm staying at a
2 campsite. I just got in on Monday so I could be
3 at all of these. I'm here from -- so I can be
4 at all these meetings.

5 AUDIENCE MEMBER: Use the mic.

6 KATHLEEN BAILEY: I didn't want them to take
7 my time by doing that. I'm here from my passion
8 and heart. No one shipped me here. You
9 wouldn't hear me anyway if I was at the mic.

10 I don't have the eloquence or the knowledge
11 of the majority of the people that spoke today,
12 so I'll be repeating what I've said in the
13 last -- in the meetings, all the meetings I've
14 attended.

15 I, Kathleen F. Bailey from Englewood,
16 Colorado, stand here before you again to repeat
17 loudly and clearly that I oppose the proposed
18 aquifer exemption decision for the Dewey-Burdock
19 uranium in-situ recovery site located near
20 Edgemont, South Dakota under the authority of
21 the Safe Drinking Water Act and UIC program
22 regulations in connection with the Class III
23 area permit to exempt the uranium-bearing
24 portions of the Inyan Kara Groom aquifers.

25 The EPA has proven itself to have devolved

1 into nothing more than a taxpayer \$8 billion
2 dollar agency dedicated to supporting and
3 promoting exemptions for the very industries
4 that continue to cause massive environmental
5 contamination, the legacy of which is left to
6 the local residents for generations.

7 At issue, the portions of the Inyan Kara
8 aquifer the EPA proposes to exempt have
9 historically been used as a source of drinking
10 water, are currently used as a source of
11 drinking water, and can be a future source of
12 drinking water.

13 EPA's current Title 40 146.4 declares, "The
14 proposed aquifer exemption area must not be a
15 current or future source of drinking water using
16 the criteria at 40 CFR 146.4."

17 With this specific aquifer exemption
18 approval, they will set a precedent eliminating
19 that second part of protecting the future --
20 exempt an aquifer that could be used as a future
21 source of water. They will set a precedent to
22 eliminate that because they have not included it
23 with this exemption proposal.

24 And the evidence of the convoluted joint
25 efforts between EPA and Azarga/Powertech to meet

1 the only consideration they want to continue
2 under their own 40 146.4. The current source of
3 drinking water was recorded in 11- -- on the
4 November 17, 2016 memorandum by Valois Shea, EPA
5 and Powertech worked cooperatively to manipulate
6 the status as "no current use" from the targeted
7 portions of an Inyan Kara group in order to
8 eliminate the current use protection.

9 Per the 11/17/16 EPA memorandum, currently
10 there are multiple wells drawing from the
11 targeted portions of the Inyan Kara group
12 aquifers that were historically and currently
13 used for both human and livestock consumption.

14 Many of these residences are currently
15 abandoned, and therefore the EPA and
16 Azarga/Powertech can say they are not currently
17 using the water. But at least one of the
18 residents continues to uses the well water, Well
19 16, from the targeted portion of the aquifer.

20 To create -- to create a "no current use"
21 status from which the EPA and Azarga/Powertech
22 are trying to base this aquifer exemption
23 proposal, Powertech promised to permanently
24 provide the resident with bottled water for
25 drinking if they agreed to let Powertech severe

1 and seal off the waterline from their well to
2 their home.

3 The resident agreed, and the waterline from
4 the well to the home was severed and sealed.
5 However, Well 16 continued to be used for the
6 resident's livestock, which under South Dakota
7 law is still considered the same as a well -- as
8 well water used for human consumption, a fact
9 that the EPA at that time was willing to also
10 ignore.

11 This was sufficient back in November 2016
12 for the EPA to conclude. Based on CZA
13 calculations, the EPA has concluded that the
14 portions of the Inyan Kara aquifers proposed for
15 exemption do not currently serve as a source of
16 drinking water.

17 Per Valois Shea in one of the last meetings,
18 she informed me that since that November 16 --
19 November 17, 2016 memorandum, they corrected
20 themselves, and on March 6, 2017, to get around
21 the Well 16 issue, they simply removed two
22 wellfields within all of the wellfields that
23 they were going to be drilling from -- from out
24 of drilling target because they determined that
25 those particular two wellfields are what fed

1 that Well 16. And yet, they're in the middle of
2 all the well -- in-situ welling that's going to
3 go on and will contaminate the entire area.

4 I publicly denounce this current effort by
5 the EPA, and I demand the EPA follow its own
6 laws and environmental protection mandate and
7 not approve this Inyan Kara aquifer group for
8 exemption because, in fact, this Inyan Kara
9 aquifer group is indeed a current and future
10 source of drinking water that requires and
11 mandates protection.

12 I wish to state two additional alarming
13 facts. What the EPA also won't tell you is that
14 uranium in-situ recovery mining has consistently
15 resulted in contamination. And per the U.S.
16 Geological Survey, to date there has been no
17 successful mitigation of the contamination
18 resulting from uranium in-situ recovery mining.
19 So the current status as a drinking water source
20 and a future drinking water source will be
21 permanently lost if this is approved.

22 What the EPA has also not disclosed is that
23 the Nuclear Regulatory Commission has approved
24 that the Class III underground injection
25 disposal wells approved for the uranium mining

1 wastewater disposal will also be made available
2 for injection disposal for other radioactive
3 waste fluids from other sources, such as
4 municipal water treatment plants, well past when
5 the mining activities stop, which will be an
6 ongoing continuous source of income for
7 Azarga/Powertech.

8 REGIONAL JUDICIAL OFFICER SUTIN:

9 Ms. Bailey, your five minutes is up.

10 KATHLEEN BAILEY: And I'm done. Thank you.

11 REGIONAL JUDICIAL OFFICER SUTIN: Thank you
12 very much.

13 Isaiah Cox.

14 ISAIAH COX: I'm Isaiah Cox, and I didn't
15 think I'd be back here so soon. But anyway,
16 well -- I will -- for one, I want to, like, tell
17 everyone here to sign up to speak. You know,
18 even if you don't really have that much to say,
19 you should still sign up or write a comment.
20 There's a comment box over there.

21 But anyway, so you want to, like, mine
22 this -- mine it -- or mine the uranium. Sorry
23 if I sound weird. But anyway, if one person who
24 lives there, if they don't want it, I don't
25 think you should do it just because of that one

1 person, mainly because it's their -- they live
2 there, too.

3 It's not just, like -- everyone is -- like,
4 everyone's voice should matter, sort of. That
5 one person, that should kind of change it to
6 where it -- you at least take that into
7 consideration, if you're not. And it's not even
8 our land. Well, it's not our land first, you
9 know.

10 So the people who had this land before we
11 came, they aren't -- they don't want this, you
12 know. So why are you trying to take this away
13 from them?

14 Thank you. And that is all.

15 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
16 Mark Brown.

17 MARK BROWN: Good afternoon. I'm Mark
18 Brown. I grew up in Edgemont. I recently got a
19 nuclear engineering degree, and I happen to be
20 in town for this thing.

21 So I don't really understand the opposition
22 to the water. You say you're going to poison
23 the water, but uranium is already in the ground,
24 it's already poisoning the water. Why do you
25 think there's radon in the basements? The alpha

1 decay there -- uranium decays, and then it
2 decays into radon, and then it ultimately decays
3 and gives you cancer.

4 Why wouldn't it make more sense to get rid
5 of the uranium in the water already? You're
6 cleaning the water. It does not make any sense
7 to -- to do it. And it works. It works in
8 Uzbekistan. It works in Kazakhstan. It works
9 in Australia. It works in Wyoming. It works
10 around the world. It's a tested, tested method
11 of uranium -- removing uranium, so I don't
12 understand.

13 You say you don't poison the water. I lived
14 in Flint, Michigan. I have seen water being
15 poisoned. This is not it. This is cleaning the
16 water. You say it's like Fukushima or like
17 Chernobyl. I was in Chernobyl eight months ago.
18 It is nothing like that. Nothing at all. I do
19 not understand the opposition to this. It
20 doesn't make sense to me.

21 Thank you.

22 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
23 Mr. Brown.

24 So at this time, those are all of the folks
25 that have signed up to speak. Is there anyone

1 else who would like to speak that has not?

2 Oh, excuse me. We have more cards. I
3 apologize.

4 Our next speaker, Will Leigh.

5 WILL LEIGH: (Speaking in indigenous
6 language.)

7 Hello, everybody. My name is Will Leigh,
8 and I'd like to read a letter from my Oyape.

9 We all use worldwide resources that our
10 earth has provided for her two-legged children
11 for centuries. Out of her love for us, we are
12 still here today. It is out of that love and
13 nature that I pray for your spirit to not become
14 stagnant, which has occurred over time of
15 ignoring history, our history.

16 We should utilize our past to stop burning
17 ourselves in the same fire, this representing
18 the choices we make to destroy our Grandmother
19 Earth, expecting different results to make what
20 was once created perfect for us a supposedly
21 better place.

22 For our brothers and sisters that have been
23 led astray from their bond with Grandmother
24 Earth by greed, let them be made aware of --
25 that that is a huge hunger that shall never be

1 fulfilled. The emotion your spirit yearns for
2 is the connection every child should have with
3 their mother.

4 The biggest bandwagon to self-destruction is
5 greed, a conception that the more currency you
6 have will fill the emptiness that only Mother
7 Earth can make whole. Let your spiritual roots
8 grow. Spiritual connection with Grandmother
9 Earth is true happiness, and we will not allow
10 this to happen to our communities any longer.

11 Do not mistake our kindness as indigenous
12 people as a weakness among a misunderstood
13 nation. We will not be easily pushed aside time
14 after time. I stand before you today not only
15 for the people standing along beside me, but for
16 your children, for what you have sold out for.

17 Through my -- though my humble spirit
18 instilled in me through my connection with the
19 earth, I pray persistently for every one among
20 us that we may remove the veil from our
21 spiritual consciousness and that Grandmother
22 Earth forgive our naive curiosity derived from
23 the discerning spread of greed.

24 The ways of our ancestors to forage
25 consistently without depleting our precious

1 resources are either chosen to be forgotten or
2 stomped out. What is happening now here with
3 the mine is just one of the many events of a
4 bigger picture that will be another little
5 expression of cause and effects.

6 We will soon no longer exist if we do
7 nothing. If we fail to compromise, the entity
8 that plagues our lands with chaos will spread.
9 Where are the men hiding, in their planning
10 rooms? They send out others, others that are
11 programmed with paper printed, and the faces of
12 people that are derived from all people. For
13 that is afflicted by any decision that is made
14 by the government for mankind.

15 That's from my Oyape.

16 (Speaking in indigenous language.)

17 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
18 Mr. Leigh.

19 Andrew Blanchflower.

20 ANDREW BLANCHFLOWER: Hello, everyone.
21 Thanks for the indigenous people of this place
22 for patience here and continued welcome and
23 support that I feel here.

24 Mostly that's why I'm here, is to stand in
25 support of that. I saw you guys in Valentine,

1 and kind of good to see familiar faces. You
2 guys, like, must really know each other by now.

3 But I notice that you guys are getting paid,
4 and we're not. Like, I'm not getting paid, but
5 you're getting paid.

6 So I'm -- so I'm questioning, like, people,
7 like, why oppose it? But I'm kind of, like, why
8 do -- I don't know why anyone is strongly
9 supporting this. I don't know how it benefits
10 anyone. The best is we get all these people to
11 come up from the industry. They are all from
12 the industry. Some way or another, they are all
13 or have been or are getting paid to be here.

14 I don't know where all the guys in cowboy
15 hats went, but they were all kind of sneering
16 and stuff like that. But I don't know. It kind
17 of becomes this partly political thing rather
18 than what is the right thing to do here as
19 human-being people.

20 Like this false dichotomy between science
21 and emotion. Like science -- if you look at the
22 word "science," it says the observation of the
23 natural world. We are the natural world.
24 That's what science is. So science has been
25 co-opted and trampled into representing

1 corporate interests. So what I'm seeing here is
2 corporate interest.

3 I know, EPA, whatever you want to call
4 yourself, you are probably really good people.
5 You have children, families, homes and that to
6 go to. You're not really the people to rant at.
7 We can never get close to those people.

8 But you can tell your people that there is
9 resistance to this, and there is going to
10 continue to be resistance to not just this, but
11 the corporate -- corporate corpse that is taking
12 away life from all of us. It's sucking life out
13 of us.

14 The relative that spoke about money, the
15 system is of control. Money is the system of
16 control. You know, would you be here if you
17 weren't getting paid? Question your life if
18 that is the case.

19 If that is the case that you would not be
20 here, you are now enslaved. You are doing
21 something against your will. As you write all
22 this down, as you write all this down, stir
23 up -- do a really good job.

24 So mostly, I just want to say that, really.
25 I don't know why to be strongly for getting

1 uranium out of the ground other than to give
2 profit to a corporation, the corporation of the
3 United States, the corporation of whatever it's
4 called, Azarga or whatever it's called.

5 So yeah, the best -- the best I can hear is
6 it's not that bad for you from the people from
7 the industry. Oh, uranium, it's not that bad
8 for you. You know, we're -- you're going to die
9 of cancer. The water is contaminated anyway.

10 It's like -- so I don't know why that is
11 enough for this project to continue. I don't
12 know why the premise is that the people who
13 aren't getting paid have to come here and say
14 stop. I don't know why it isn't the other way
15 around. I don't know why the corporation isn't
16 coming to the people and asking, is it -- does
17 this make any sense? Can we do this?

18 So maybe -- maybe -- I was at Standing Rock.
19 I'm English. This is a global issue. There are
20 some local people here. I want to respect local
21 settlers who own title to land. You don't own
22 land. We all know you don't own land.

23 But these -- it's a global issue. It's a
24 local issue. It's uranium. It's not a local --
25 uranium isn't local. It affects the whole

1 world.

2 I'm English, and I -- my children, my wife
3 are American. We currently live with the -- on
4 the Sicangu Rosebud over there. That's where
5 we're residing at the moment. But -- yeah,
6 mostly I just wanted to say that.

7 In which reality would we prefer to live in,
8 one where people come out of the goodness of
9 their heart or one where there are paid. People
10 paid -- obviously paid by corporations to sneer
11 and deride people for having an emotional
12 response to something that is actually quite an
13 emotional issue.

14 So yeah, just mostly that. There will be
15 resistance. There is resistance. Expect that.
16 And we'll see what happens, I guess. If you --
17 if you, your bosses, the people who pay you and
18 enslave you decide to go ahead and grant the
19 permits. So I request that you don't grant the
20 permits.

21 Maybe I will request that you grant them so
22 that we can, like, get on with this and get rid
23 of the corporations and -- no. Formally, I'm
24 requesting that you do not grant the permits.
25 And that they better watch out, seriously.

1 All right. Thank you.

2 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.

3 Robert White Mountain.

4 ROBERT WHITE MOUNTAIN: Good afternoon. I
5 was going to introduce myself in my language,
6 but I think it's -- I will skip that because it
7 takes too long. I want to save my time so I can
8 talk. Last time I got cut off.

9 My name is Robert White Mountain. I'm
10 Hunkpapa Lakota from Standing Rock. And I'm
11 just here trying to understand both sides
12 because I was taught that. I'm a fair person,
13 so I have to look at both sides. And I have.

14 You know, I've not an expert in all this,
15 but I've been working on this for quite a while.
16 My first experience with this was 36 years ago
17 right up here, right up the road where they were
18 trying to destroy some very sacred sites that
19 our people have.

20 And that's really important, not only for
21 our people, because it also is important for
22 everybody, to protect these sacred sites,
23 because it explains life as we know it here on
24 earth. And if we destroy these, you know, it's
25 like we are -- you know, we're lost.

1 You know, our Lakota people and our
2 indigenous people, we have records that go back
3 millions of years. Millions. Not thousands,
4 not hundreds, billions. We understand this land
5 for billions and billions of years since we were
6 put here, since we came here. So it's not
7 something that we are not familiar with.

8 We are -- we've been here, we always will
9 be, and that's just the way it is. And now we
10 see that, you know, since the last 500 years,
11 our guests have come over here.

12 You know, I think there's a lot of
13 disrespect from our guests. Because you would
14 think you would come over here and you own this
15 land, but you don't. Because if you really look
16 at it, the government has been in a position
17 where nobody ever owns the land. As long as you
18 keep paying your taxes, you can live on it.

19 But you never will own it because it's under
20 a parliamentary system. So then we go back to
21 all that. Anyway, that's a long story. So
22 basically, nobody will ever own this land
23 because of the way it's set up.

24 So if you say, I have these 140 acres. If
25 you don't pay the taxes on that 140 acres, it's

1 not yours. It goes to the next guy. That's
2 just the way it is.

3 So we all have to live here. I look at all
4 of this, you know. It was -- I look at this
5 town, you know. I was driving around this town,
6 and I heard a gentleman say there was uranium
7 mining here for 29 years. And, you know, I was
8 like, Okay. I look around, you know. Mining
9 towns, they're usually -- you know, when there's
10 a mining town, it grows.

11 I mean, a town will grow and grow and grow
12 until finally it busts. The mine will close
13 down, and slowly it dies out. That's just the
14 record of everything -- all over, all over, all
15 over the land here.

16 You know, so -- you know, it's like you had
17 29 years of mining here, but this town is so
18 tiny. There's nothing here. Why -- where is
19 the growth? So where is the -- where is the
20 lucrative point in mining?

21 So then you think back through the basics of
22 human beings, who are we? We are all human
23 beings. I'm a Hunkpapa Lakota, but I'm still
24 the same as you. I still have the same red --
25 same blood. I still have lungs and a heart and

1 everything else as you. I'm no different.

2 But I look out for my kids. I look out.

3 I'm a father, I'm a grandfather, I'm a
4 great-grandfather. I have great-grandkids.

5 I look out for these kids because I also --
6 you know, I don't really care for what happened
7 in the last 500 years. But it's the relatives
8 that -- you guys are all here. And you guys
9 aren't going to go. You should go home, but you
10 ain't going. So we've got to leave here, you
11 know. We have to live together.

12 But we can't live together if we're
13 poisoning each other. No matter how safe
14 science says it is, there is no proof of how to
15 fix this, clean this water up. No proof. No
16 track record at all.

17 And we're still going to take this risk for
18 our kids, the kids standing in the back? You're
19 going to have kids, you know. Why take the risk
20 when you have so many alternative energies?

21 I heard one gentleman say, you cut down wind
22 because it kills birds. Well, that's been
23 fixed, too. They made them bigger and slower so
24 they don't kill birds. You know, solar, well,
25 it's got so cheap everybody can afford solar.

1 There's so much power in the sun that will
2 power everything for 36-, 40,000 years. Okay.
3 You got those two things down. You can find out
4 about those.

5 What about magnetic? We have -- we have,
6 you know -- we have a gravity pull that's so
7 much magnetic power in this earth that's
8 untapped. And it's very safe. All these other,
9 the geothermal, all these different kinds of
10 alternative energies that we have at our
11 disposal that Mother Earth has created that's
12 brought for us to live, to enjoy. We don't need
13 to go underneath the ground.

14 You know, I look at the Bible, and I see
15 this thing called the forbidden fruit. And it
16 says that Adam went over there, and he grabbed
17 that fruit, and he ate it. It could be
18 anything. To me, the forbidden fruit is what's
19 underneath the ground.

20 REGIONAL JUDICIAL OFFICER SUTIN: Mr. White
21 Mountain, your time is up.

22 ROBERT WHITE MOUNTAIN: You can't touch it.

23 It's all good. I knew you'd cut me off.

24 So the forbidden fruit is what we have
25 underneath the ground.

1 There's two worlds here. We have the
2 underworld and we have the above world. We have
3 two worlds that we live in. We live in both.

4 Maybe some of you guys don't know how you
5 live in both, but we do. But we do. And so we
6 have to protect that underneath as much as we
7 can because it's going to affect above, too.
8 Thank you.

9 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
10 Mr. White Mountain.

11 It is a little after 5:00, so we will be
12 breaking until 6:00. We'll return then and take
13 more testimony. Thank you.

14 We'll go off the record at this point.

15 (A recess was taken from
16 5:03 p.m. to 6:05 p.m.)

17 REGIONAL JUDICIAL OFFICER SUTIN: Good
18 evening, everyone. We're going to get started,
19 so if you want to take your seats. My name is
20 Elyana Sutin, and I'm the Regional Judicial
21 Officer for the Environmental Protection Agency
22 in Denver, Colorado.

23 We're not going to go through the formal
24 remarks this evening. I think most folks who
25 were here this afternoon heard the remarks. But

1 I will just walk through briefly what the
2 process is for speaking this evening so that if
3 you were not here and are interested in
4 providing testimony, you know what we're doing.

5 So I will just read briefly what we're here
6 for. On March 6, 2017, EPA issued two draft
7 Underground Injection Control, or UIC, area
8 permits to Powertech USA, Inc. for injection
9 activities related to uranium recovery near
10 Edgemont, South Dakota.

11 The draft permits include a UIC Class III
12 area permit for injection wells for the in-situ
13 recovery of uranium, and a UIC Class V area
14 permit for deep injection wells for disposal of
15 treated in-situ recovery process waste fluids.

16 The EPA is also proposing an aquifer
17 exemption approval in connection with the draft
18 UIC Class III area permit.

19 We are here today to listen to your comments
20 on these area permits and aquifer exemption. We
21 will take testimony from 6:00 to 8:00 p.m. I
22 will call speakers to the microphone who have
23 filled out a card at the registration table.
24 When it is your turn to speak, please state your
25 name before you begin your testimony.

1 We will allow people five minutes to speak.
2 After four minutes, you, will see a yellow
3 triangle that shows you have one minute left,
4 and then at five minutes the red stop sign will
5 go up, and I will let you know that you need to
6 complete your testimony.

7 We ask that you be succinct and stay on
8 point. If I find that the testimony is straying
9 from the topic at hand, I will ask you to return
10 to the issue before us.

11 If we have time, if everyone has had the
12 opportunity to speak who has not spoken, you are
13 able to come back up and finish your testimony
14 if you had more to say.

15 After finishing your testimony, members of
16 the panel may ask clarifying questions, but we
17 are not here to explain the proposal nor are we
18 here to answer questions during the hearing. We
19 are recording the hearing tonight, so be assured
20 your comments will be considered.

21 The court reporter sitting to my left will
22 be preparing a transcript of the proceeding and
23 it will be available to anyone who wants to see
24 it.

25 The transcript is part of the record, and it

1 will be included in the docket for this matter.
2 The docket is all of the collected materials EPA
3 has used to consider its action, including
4 public comments. The docket is available on the
5 internet for your review or you can see a hard
6 copy at EPA's Denver office.

7 If you have written copies of your
8 testimony, please give a copy to our staff. You
9 can provide it to me or at the registration
10 table. That will be helpful in preparing the
11 transcript. If you have other written comments
12 or documentation that you would like to provide,
13 you can also leave that with us and we will make
14 sure that it gets in to the docket.

15 You can -- after tonight, you can submit
16 written comments. The comment period will go
17 for another week until May 19th, so you -- we
18 encourage and you are welcome to submit written
19 comments after these hearings are over.

20 Once the final permits are issued and the
21 aquifer exemption determination has been made,
22 anyone who participated in these hearings,
23 either through oral testimony or written
24 comments, has the write to appeal the Agency's
25 final decision to the Environmental Appeals

1 Board.

2 So with that, we will get started with
3 testimony. First speaker, Linda Tidball.

4 LINDA TIDBALL: My name is Linda Tidball,
5 and I have taught here in the Edgemont school
6 system for 25 years now.

7 I moved to the Dewey area when I was five
8 months old, and so I grew up in Dewey on a
9 ranch, and I'm actually the fifth generation of
10 rancher. And I would consider my relatives to
11 be good stewards of the land. Ranchers are not
12 very successful if they don't have water and do
13 not take good care of the land.

14 I totally support this project. I have been
15 to numerous presentations on how it works. I
16 listened to engineers and people who are
17 educated in this deal, and trust that they, too,
18 know the science and would not want to
19 contaminate our water.

20 There was some misconception that all of us
21 standing back there were paid by the
22 corporation. I think there were two people here
23 that are paid by corporations. So the rest of
24 us were totally community members volunteering.

25 I also enjoy natural resources. I didn't

1 see any horses or bicycles out there today. So
2 I'm assuming everyone used oil products to get
3 here. I do that, too. And I'm so glad that
4 technology has brought us as far as it has so
5 that we are able to use natural resources.

6 And I know previously some of the uranium
7 mining had spills and mishaps and it wasn't as
8 safe as it is. But many, many things in our
9 lives are different because of advanced
10 technology and education.

11 And I was fortunate to go to the School of
12 Mines on Monday for the math contest. I got to
13 take a group of our wonderful kids from our
14 area, and it was interesting visiting with math
15 and science teachers.

16 And they were questioning why, why would
17 people be opposed to that. In-situ is one of
18 the safest mining processes there are. And I
19 was sitting with engineers who have been
20 educated on this process.

21 And so I am in total favor. I've lived
22 here, with the exception of the time I went off
23 to college. I wanted to come back and raise my
24 kids here, my grandkids. So I want it on the
25 record that I totally support this project.

1 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
2 Ms. Tidball.

3 Mary Helen Pederson.

4 MARY HELEN PEDERSON: My name is Mary Helen
5 Pederson. I do not live in Edgemont anymore,
6 but 61 years ago I came over here from the
7 Rosebud to go to school at the high school here.
8 I lasted one semester.

9 Because when I come over here, I thought, I
10 got to wondering, What in the world is going on
11 here? What's wrong with this sky? It's not
12 clear. It's -- it's -- I don't know.

13 And then I found out that there was uranium
14 all around here.

15 So I spent my lifetime checking out
16 on scientists and stuff that have studied
17 uranium, and I found out that one of the biggest
18 uses for uranium was to have -- to make bombs
19 and stuff with it, and what devastation they
20 could -- they could prove.

21 A person -- innocent people couldn't even
22 have a chance for life. They would be killed.
23 Actually, they would be melted in just a few
24 seconds. We proved that with the Japanese
25 people. I don't think we're any stronger than

1 they are.

2 And then they had all this uranium. They
3 didn't quite know what to do with it. So they
4 thought they should put it to good use. They
5 come out with all kinds of advertisements, if
6 you used uranium on your skin, your skin will
7 just glow, and you will be beautiful. And
8 people bought that.

9 And there's movies out about it. There's --
10 like the movie about the girls that had to paint
11 the illuminous dials on watches and what
12 happened to them. There's all kinds of
13 scientists out there that prove what uranium
14 will do for you.

15 True, like some of the people talked about,
16 there's uranium, you know, all over the world.
17 But as long as Mother Earth has taken care of it
18 and it's down underneath, she knows how to take
19 care of it.

20 It's only when we have greedy people that
21 come along and want to dig it up and do all
22 these wonderful things with it and try to
23 convince all of us that this is the best thing
24 that ever happened to us in the world, then
25 Mother Earth gets a little mad and things kind

1 of go off and, mistakes happen and leaks happen.

2 And the people around here that are
3 listening to these engineers out of the
4 engineering, mining college up there in
5 South Dakota, they evidently didn't go to really
6 check out the scientific information on uranium.
7 Because there's all kinds of websites out there
8 that you can go to and learn everything you want
9 to know.

10 There's pictures of what uranium does to
11 you. There's -- I have a friend right here,
12 didn't happen in Edgemont, but she's got 90
13 percent uranium in her body. She is going to
14 die from it, from uranium. You know, call it
15 cancer. You can call it all kinds of fancy
16 names that the doctors have made up for all this
17 stuff that goes wrong with the person.

18 But she has been contaminated with uranium
19 to 97 percent, and I know she's going to talk
20 later so she can talk more about that.

21 I took home -- yesterday I went to
22 Hot Springs. I took home all of your wonderful,
23 wonderful pamphlets there. I can pick every one
24 of them apart. Like the Class III area permit
25 does not allow the Inyan Kara aquifer outside

1 the aquifer exemption boundary to be impacted by
2 any contaminates resulting from uranium
3 recovery.

4 How are you going to guarantee that? Are
5 you going to put your life on it? No. You
6 don't live here. You're only paid to come here
7 and tell us what you can do. You are the
8 Environmental Protection Agency. Do your job.

9 That's what you are set up to do is protect
10 all of us from the corporations coming in here,
11 raping us.

12 I could go on about the Superfund that Mark
13 Hollenbeck wouldn't let on the land so they
14 could declare it a Superfund. You've seen
15 pictures of those things. I know some have been
16 sent to you, those big dumps out there. And
17 that's where they want to start up again.

18 We had a big rain here in 2013, I believe it
19 was, or '14, that they got nine inches of rain
20 over there by Dewey-Burdock. What does it do?
21 It fills up those holding ponds.

22 REGIONAL JUDICIAL OFFICER SUTIN:

23 Ms. Pederson, your time --

24 MARY HELEN PEDERSON: Well, I'm done. I can
25 go on and on on your literature alone. That's

1 lies.

2 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
3 Ms. Pederson.

4 Sarah Peterson.

5 SARAH PETERSON: My name is Sarah Peterson,
6 and I'm going to finish how Mary Helen started
7 before I go back to what I was going to say.

8 Yes, there was a Superfund application for
9 the Diamond Mine at Dewey-Burdock. And two
10 people from the EPA, I'm not sure who they were,
11 came up and were thrown off the land.

12 They could not do the investigative work to
13 determine whether the Superfund cleanup was
14 needed.

15 They came back the next summer -- and I
16 don't understand how this works -- they got
17 thrown off again. This is the federal -- you're
18 a federal agency. And you have the federal
19 court behind you. Why didn't you come out with
20 the court order to get back on the land to
21 protect us and clean up the mess that was left?

22 You know, I -- I just think of the IRS. If
23 they knocked on my door, I couldn't say, Get out
24 of here. I would be put in jail and everything
25 taken away from me. I don't get this.

1 I will start where I was going to start now.
2 Going back. It was in 2013, the first hearing
3 for the South -- the DENR, the South Dakota
4 Water Board was held on this issue. The Atlas
5 storm blizzard, the 150-year blizzard came and
6 people barely got -- most people didn't make it.
7 But the judges were all there, and I --

8 Somebody's testimony was talking about the
9 rancher that had their water disconnected. I
10 think I know who that was because he was out in
11 the hallway with Powertech signing the papers
12 right before he came in and commented. And he
13 said, Oh, yeah they are taking care of me. Oh,
14 they are giving me such a good deal. They're
15 going to bring me clean water.

16 And I also heard the young man who is the
17 nuclear scientist, the young nuclear scientist
18 that grew up here. He said this actually cleans
19 the water. Well, I was at another hearing, a
20 hearing down in Crow Butte, and they were
21 talking about restoring -- by the way, Crow
22 Butte operated for at least five years without a
23 permit because it had expired, and it took the
24 NRC -- they continued to operate it and it took
25 the NRC five years to get the hearing together

1 to issue another permit.

2 I don't know, I was listening to all five
3 days of the testimony and the judges were asking
4 them about the water in this one aquifer that
5 was going to be cleaned up as soon as they were
6 done.

7 They talked about working on it and working
8 on it and they -- they said, We've done the best
9 we can. So they asked the NRC for an exemption
10 to that aquifer. That's all they have to do.
11 It's messed up. Well, then we'll just exempt it
12 from the Clean Water Act. And this is what I'm
13 hearing. I can see this is what's going to
14 happen here, too.

15 Mary Helen was talking about, this water
16 will not go past a certain point, the
17 contaminates. How can you do that? How can you
18 do that? The EPA says after in-situ leach
19 mining, the water can never be restored to
20 baseline. Never. That's what your Agency says.

21 And I have been to hearings, the NRC
22 hearings for this, and I'm scared because I see
23 what happens when -- there was a leak, this safe
24 in-situ leach process with all the detection
25 wells, there are 125 million gallons of -- of

1 the toxic waste down at Crow Butte that leaked,
2 and none of their detection wells got it. And
3 it leaked. There was a pin hole in one of their
4 pipes. It leaked for years.

5 And this is what happens. And that kind of
6 stuff just never is brought out. It's always
7 exempted. They are called excursions because
8 the companies -- the EPA does come up here to
9 check things.

10 When Mark Hollenbeck was a representative
11 here, House Bill 154 took away the rights of the
12 State to regulate and do the water and gave it
13 to you. And you can't even get on the project
14 area.

15 REGIONAL JUDICIAL OFFICER SUTIN: Your time
16 is up, Ms. Peterson. Thank you.

17 Tim O'Connor. Tim O'Connor.

18 Okay. Hunter Hollenbeck.

19 HUNTER HOLLENBECK: My name is Hunter
20 Hollenbeck. My dad is Mark Hollenbeck. And
21 he's been the manager of Powertech since I was
22 two years old. Right now I'm 12 years old.

23 Besides working on this uranium project, my
24 dad is a certified organic rancher. Very close
25 to this project site.

1 I love ranching. I try to help my dad with
2 it every chance I get. My long range plan is to
3 live and work off the ranch, too. However, I'm
4 going to need a job.

5 Do you think it'll be operating by the time
6 I'm out of college? If all goes well, that will
7 be about eight years from now.

8 The main reason I wanted to speak here today
9 is to let you know that not only do my parents,
10 my three sisters, and the ranch by
11 Dewey-Burdock, but so does my uncle, my grandma,
12 and my grandpa who used to live in Dewey until
13 my grandpa died a couple years ago, and now
14 Grandma lives in Edgemont. Also my aunt and her
15 family live in this area, and I know almost
16 everyone who ranches near us, and a good many
17 people in town.

18 My mom is a teacher in Edgemont, and she
19 knows that our school could use a few more
20 students. So I hope people with kids would get
21 some jobs here.

22 The main point I wanted to make is that my
23 dad would never take any risks with our water or
24 our land or environment or anything. Our family
25 and land is what makes it all happen.

1 Over the years I've learned a lot about
2 in-situ mining process, and I know it would be
3 safe and our water will be fine. I want people
4 from other towns to learn more about it so that
5 they could quit trying to stop it and let it get
6 started.

7 That's it for now. I appreciate you letting
8 a teenager voice his strong opinion on this.
9 Thank you.

10 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
11 Mr. Hollenbeck.

12 Carl Shaw.

13 CARL SHAW: Good day to each of you. My
14 name is Carl Shaw. I am a former mayor of
15 Edgemont, South Dakota, the host community for
16 the Dewey-Burdock project.

17 With few exceptions, this community is
18 strongly in support of Powertech's proposed
19 in-situ uranium project. The Dewey-Burdock site
20 is about 13 miles northwest of our community,
21 and we expect that our schools, our
22 infrastructure, and our business will see the
23 benefits of this project.

24 Powertech has been a good corporate citizen
25 of Edgemont since they opened their office here

1 two years ago. They have been very open with us
2 in explaining the project in detail.

3 We look forward to the economic activity
4 that it will bring to our small community. Over
5 the years we've had an awful lot of kids from
6 our area earn engineering and science degrees,
7 and then have to go elsewhere to find meaningful
8 work. Others have gone to Wyoming or North
9 Dakota to work in technical and service-oriented
10 jobs.

11 Personally, I look forward to having good
12 jobs nearby so that our young people can stay
13 here or return here to work and raise a family.

14 As an elected official, I take my office and
15 responsibilities very seriously. And I think
16 our city council did that when they passed this
17 resolution of support for the Dewey-Burdock
18 project. I have a copy of it right here.

19 Jim Turner was our mayor when this was
20 signed, but Jim has since passed away. So I
21 will do the honors of presenting this to you
22 with this copy of the resolution in support for
23 the Dewey-Burdock project, and ask that it be
24 included in the record of this hearing.

25 In conclusion, I want to emphasize my

1 personal strong support for the Dewey-Burdock
2 project, and I hope you will finalize this
3 subject and commence quickly and without unduly
4 burdening the company. More than ten years is
5 more than enough time to get this project
6 started. Thank you.

7 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.

8 JOHN PUTNAM: John Putnam.

9 I have an aversion to microphones, just so
10 you know.

11 Good evening. Thank you for the opportunity
12 to speak here today. My name is John Putnam,
13 and I'm from the heart of Dewey-Burdock. I live
14 and work on my ranch, which was homesteaded by
15 my great-grandfather about 120 years ago. I am
16 one of only two people that live inside the
17 boundaries of the mine permit area.

18 I am also a resident of Argentine Township.
19 Much of the Dewey-Burdock ISR project is located
20 in Argentine Township. And I just deposited the
21 resolution for the -- in the box over there. So
22 Argentine Township has signed a resolution in
23 support of the project.

24 We live and ranch there. Our families
25 depend on the groundwater for our livelihoods

1 and our everyday life. If anyone's livelihood
2 or quality of life were at risk with this
3 project, it would be us.

4 I request that you rule on the side of
5 science and not emotion on these permits. Thank
6 you.

7 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
8 Mr. Putnam.

9 Eileen Ohliger.

10 EILEEN OHLIGER: Hello, my name is Eileen
11 Ohliger, and currently I'm residing in
12 Hot Springs, South Dakota. Previous to this
13 time I've sent in written comments to you guys,
14 and I would like you to just know that I don't
15 support this.

16 And the reason being, I'm originally from
17 New Jersey. And being from New Jersey and
18 seeing what has happened with the pollutants
19 with, like, Oyster Creek with the nuclear plant,
20 having friends at home currently that have
21 issues, that -- I have a friend that recent- --
22 that currently lives outside of where the plant
23 was, in what is considered a Superfund area that
24 has been cleaned up. His dogs go outside and
25 they still get blisters on their feet. There's

1 loads of people that have cancers.

2 What I have seen coming from the east coast
3 and coming from an area where there -- they
4 supposedly, you know, the EPA come in and
5 cleaned up, I've seen oil spills, I've seen
6 things with the nuclear plant. I have -- I'm in
7 this area for a reason, because this is a very
8 clean, pristine -- and the water here is very
9 clean.

10 Coming from New Jersey, I also know that
11 companies, they do things for money. And right
12 now, I believe, for me personally, is that this
13 is very greed-driven. Because to me, yes, you
14 say about uranium and mining uranium, well, it
15 doesn't look to me that uranium -- and research
16 that I've done -- I worked for the public school
17 system for 25 years, back out east.

18 And I've done a lot of research and I've
19 done a lot of reading, and it doesn't seem to me
20 that the money for uranium is what it's about.
21 To me what my concern is is that Superfund
22 sites, what happens with all the contaminates,
23 everything that's going to be put into the
24 ground or put someplace else, and supposedly be
25 cleaned up.

1 To me it seems more like an issue that is,
2 where -- where are they going to put this? And
3 what happens if an outside company comes in and
4 purchases, you know, money rights. Are we just
5 going to become a toxic dump here?

6 I'm not saying that New Jersey is a toxic
7 dump, but I'm from New Jersey for a couple
8 hundred years. And I have seen what has
9 happened with pollution, with big corporations.
10 With people being, in my opinion, greed-driven
11 for money, money, and not seeing what happens
12 afterwards.

13 Because a number of years later, there's
14 still things that happen, and there's still
15 effects on people and animals and plants and
16 everything. And it's my concern that out here,
17 if this does become like a Superfund site, a
18 place where people are going to allow other
19 countries -- if it's so safe, why are these
20 people not doing this where they live? Why are
21 they not doing this where they live?

22 Live where you live, drink the water that's
23 there, live in that area, and see. Because in
24 my lifetime, I have seen what has happened out
25 east, and seen what has happened in a lot of

1 different, different ways.

2 And I've seen what's happened with water,
3 too. And to me, it's an issue with water.
4 Everyone needs water. Water is precious. Why
5 even take the chance? I -- I just don't -- I
6 just can't understand.

7 You know, coming from where I've come from
8 and then living in a such a beautiful area like
9 this with, you know, so many beautiful people
10 and surroundings and just everything is really,
11 you know, very well-cared for, why even consider
12 anything like this at all? Why even consider
13 this? For money, for monetary purposes? To
14 eventually become a toxic -- you know, a dump
15 area.

16 Things may have not happened now and people
17 are saying, okay, well, yes, it's clean, we
18 wouldn't want to do anything to hurt, you know,
19 our families and our relatives. You wouldn't
20 want -- nobody wants that to happen.

21 But in the long run, there is no proof that
22 this would be -- you know, if there is any
23 contamination, that this will be cleaned up,
24 this will be restored to its -- you, know, its
25 exact condition.

1 And this is not just about us here. This
2 will spread out. This water is not just this
3 concentrated area here. This water supplies
4 many millions of people. Every little
5 tributary, every little thing is connected.

6 And I've seen what salt water does. They
7 say salt water, you can't drink salt water. You
8 can't drink brackish water either. Because
9 where I lived, there was fresh and salt water,
10 comes together, makes brackish water.

11 The animals, the fish get parasites. It
12 needs to be monitored for bacteria. There's a
13 tremendous amount of issues that would come
14 later on.

15 Yes, it might seem like it's okay now. But
16 like I said, in my lifetime and what I've seen,
17 I don't -- I don't think it's a good idea. I
18 think it's -- you know, it's a pretty -- it's a
19 bad idea. And I've already sent, you know, in
20 my comments and stuff previous for my entire
21 family.

22 Thank you, guys, for coming in to listen to
23 everyone, too. Thanks.

24 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
25 Miles Englebert.

1 MILES ENGLEBERT: Hello. My name is Miles
2 Englebert, and I live and ranch on Dewey Road
3 with my family. I've been a part of that
4 community my whole life with going to preschool
5 and graduating from Edgemont two years ago.

6 My ranch is on the proposed Dewey-Burdock
7 site, and I support the Dewey-Burdock project.
8 My support may come as a great surprise to the
9 opponents who live in Rapid City, Nemo,
10 Pine Ridge, Hot Springs, and other areas.

11 In reality, they have very little at stake
12 except they will likely share the economic
13 benefits to the state and local region.

14 I've taken the opportunity to become
15 familiar with this project. And I am
16 comfortable with it proceeding on our property.
17 I'm saying this as a rancher who values water as
18 much or more than anyone, as water is imperative
19 to our way of life, to our very existence here.

20 I want to have the opportunity to come back
21 here and ranch. And if I thought this project
22 would jeopardize my chance of coming back and
23 ruining my family ranch in any way, I would not
24 have any support with this project at all.

25 It would be nice to get these permits

1 finalized as quickly as possible without making
2 Powertech jump through a bunch of new hoops.
3 This has taken far too long.

4 And I look forward to having good jobs
5 nearby so myself and my brothers have the
6 opportunity to come back and ranch and work off
7 the ranch as well so we can live here. Thank
8 you.

9 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
10 Mr. Englebert.

11 Kathleen Jarvis.

12 KATHLEEN JARVIS: Hi, how are you? My name
13 is Kathleen Jarvis.

14 REGIONAL JUDICIAL OFFICER SUTIN:
15 Ms. Jarvis, can you bring the mic down.

16 KATHLEEN JARVIS: Thank you. My name is
17 Kathleen Jarvis. I'm the former controller of
18 Custer State Park, former city finance officer
19 of Hermosa, I currently work in the oil and gas
20 industry.

21 The proposed Dewey-Burdock project ISL mine
22 near Edgemont, South Dakota Environmental Impact
23 Statement, the SEIS, fails to consider connected
24 actions.

25 Comment: My concerns regarding the

1 Dewey-Burdock project are centered around the
2 problems of artesian flow and interactions with
3 the remediation of buried chemical warfare
4 material located at the Black Hills Army Depot
5 less than ten miles to the south.

6 Furthermore, Powertech's experts propose
7 land application areas on river terraces and
8 deep well injection into aquifers within the
9 project boundaries under the sanctions of EPA
10 permits to be exempted from the Safe Drinking
11 Water Acts, SDWA 1977 and 1986.

12 Surface water flow in channels is ephemeral,
13 except for perennial Beaver Creek. U.S. Army
14 Corps of Engineers permits under Section 404 of
15 the Clean Water Act, it will be required before
16 conducting work in jurisdictional wetlands.

17 The Dewey Burdock project will transmit the
18 applied and/or injected waste directly into the
19 area of the Beaver Creek watershed, within the
20 upper Cheyenne River watershed of the Cheyenne
21 River to flow eastward through the state of
22 South Dakota and into the Missouri River
23 affecting the entire Missouri River Basin.

24 Water quality: Other areas are dealing with
25 primary and secondary water quality issues. See

1 the Southern Black Hills Water System Appraisal
2 Report.

3 For example, the town of Edgemont has
4 quality concerns with primary drinking water
5 standards relative to some categories of
6 radionuclides, example, alpha particles that can
7 result in increased risk of cancer.

8 Edgemont has shown a test of 17 milligrams
9 per liter on alpha particles and the U.S.
10 Environmental Protection Agency limit is 15
11 milligrams per liter.

12 The problem of artesian flow: Artesian
13 springs act as a relief valve for the aquifers
14 and are an important mechanism in controlling
15 water levels in these aquifers. Spring flow of
16 many large artesian springs changes over slowly,
17 very slowly in response to long-term climatic
18 conditions.

19 Artesian spring flow could be diminished by
20 large scale well withdrawals near springs, thus
21 impacting surface water resources. Large scale
22 development of the aquifers has the potential to
23 influence the balance of the unique and dynamic
24 plumbing system in the Black Hills area that
25 controls interactions between groundwater levels

1 and artesian spring flow.

2 Artesian flow occurs when there is a
3 hydraulic connection through faults or highly
4 permeable strata between groundwater sources
5 high in the landscape and the land surface lower
6 down. The weight of the water in overlying
7 strata exerts pressure downward into water
8 within the uranium-bearing strata, which can be
9 released as artesian waterflow like a fountain.

10 When topographically lower uranium-bearing
11 strata is exposed at the surface or where it is
12 punctured by drilling, artesian flow was
13 observed or restricted by Powertech in their
14 Dewey-Burdock project proposal, and was observed
15 directly at the Black Hills Army Depot less than
16 ten miles to the source -- excuse me, to the
17 south. U.S. Army Corps of Engineers, 1992.

18 In order for artesian flow to occur at the
19 Black Hills Army Depot, the water must originate
20 topographically higher in the Black Hills and
21 pass through the Dewey-Burdock project area.

22 Were this to happen with oxidant-charged
23 lixivate, contaminated groundwater would rust
24 any metal-contained ordnance and release the
25 contents into the environment.

1 Concluding remarks: It is very likely that
2 the oxidants used to free the uranium will also
3 cause the destruction of underground storage
4 containers, i.e., buried chemical warfare
5 material located at the Black Hills Army Depot
6 less than ten miles to the south of the
7 Dewey-Burdock project area, and release their
8 contents into the area's ground and surface
9 waters.

10 This huge munitions depot handled thousands
11 of tons of chemical warfare agents such as
12 sarin, soman, toban, GB, and VX, plus mustard,
13 phosgene, and Lewisite.

14 References: U.S. Army Corps of Engineers,
15 1992 preliminary assessment of ordnance
16 contamination at the former Black Hills Army
17 Depot, South Dakota.

18 U.S. Army Corps of Engineers, 1992, "Final
19 Archive Search Report, Preliminary Assessment of
20 Ordnance Contamination at the former Black Hills
21 Army Depot," South Dakota, Huntsville, Alabama.

22 U.S. Army Corps of Engineers, 2012, "Final
23 Work Plan for Black Hills Army Depo Remedial
24 Investigation and Feasibility Study."

25 REGIONAL JUDICIAL OFFICER SUTIN:

1 Ms. Jarvis, your time is up. I need you to wrap
2 up.

3 KATHLEEN JARVIS: Thank you.

4 REGIONAL JUDICIAL OFFICER SUTIN: Thank you
5 very much.

6 Next if we can have Rowan, Isla, Tamarach,
7 Sea Usia.

8 Go ahead when you are ready.

9 ROWAN, ISLA, TAMARACH, SEA USIA

10 BLANCHFLOWER: (Singing in indigenous language.)

11 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
12 Thank you very much.

13 Next if we can have you Earl Tall, please.

14 That's a hard act to follow.

15 EARL TALL: I heard a lot of good things
16 from these young people today, our future
17 generations. I spoke a couple days ago in
18 Rapid City, and I talked about the Bible. And
19 we all know that this land is stolen land. This
20 land belongs to Lakota people. And we need to
21 be consulted if anything is going to happen on
22 this -- in these Black Hills.

23 I want to talk a little bit about the water.
24 Water. You guys heard, water is life. Mni
25 Wiconi. Water is more precious than gold or

1 uranium or any -- whatever monetary value you
2 have. It's keeps everyone alive, including you
3 guys.

4 I talked at a NRC hearing a couple years ago
5 in Hot Springs. And I mentioned the United
6 States should implement this COOL, Country Of
7 Origin Labeling. Lakota people, we like our --
8 we like to eat meat, hamburgers, steak. And
9 with that Country Of Origin Labeling at least
10 we'll know where that meat is coming from. I'd
11 sure hate to eat a cow that comes from this area
12 with all the previous mines that are here.

13 This -- I was here just for the afternoon.
14 I have COPD, breathing difficulties. Just being
15 here in this atmosphere is getting me sick. You
16 guys might think it's -- you guys are safe here,
17 but you're not. Uranium doesn't discriminate.

18 And that's -- there's no -- there's no way
19 to clean our waters. No matter what kind of
20 scientific -- how many scientists or geologists,
21 whatever you -- they tell you that you could
22 purify this water, it's just BS.

23 Our -- when we've been here for thousands of
24 years, this place was pristine. In 500 years
25 since Columbus thought he was in India, 500

1 years since then, you notice how this water, our
2 atmosphere, everything changes in just 500
3 years.

4 Our people were -- at one time there was
5 scalps, people paid for scalps for Indian
6 scalps. And smallpox, and blankets were given
7 to us with smallpox in it to get rid of us. Our
8 women and children were massacred, and yet we're
9 still here. We're not going nowhere.

10 A lot when -- a lot of you are gone and move
11 on, we'll still be here.

12 REGIONAL JUDICIAL OFFICER SUTIN: Mr. Tall,
13 your time is up, so I need you to wrap up,
14 please.

15 EARL TALL: Okay.

16 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.

17 EARL TALL: Well, in wrapping up, I guess
18 I'd like to say the Black Hills are still not
19 for sale.

20 REGIONAL JUDICIAL OFFICER SUTIN: Is Tim
21 O'Connor here?

22 Next, can we have Alex Good Cane Milk.

23 ALEX GOOD CANE MILK: Hello, cousins. How's
24 it doing today?

25 All right, got to see some smiles. All

1 right.

2 So, my name is Alex Good Cane Milk. I am
3 Yankton Sioux Hunkpapa, and I'm here to talk
4 about common sense. So there's pros and cons to
5 having common sense, you know.

6 Pro, that you have it. A con is that you
7 have to deal with those that don't have it. So
8 we'll just let that sink in for a little bit,
9 you know.

10 You're willing to let something, doesn't
11 matter what it is, destroy something that you're
12 trying to live off of. Why would you allow
13 uranium in your homes when you know it's going
14 to destroy the lands you live off of, the water
15 you drink, the animals you hunt, and the food,
16 the plants that you eat.

17 That's common sense to me. I don't know
18 about you guys, you know. And then yeah, think
19 about all the money, that's awesome. But how
20 long does that last? We all have money, big
21 stacks of it, but then we spend it, right? And
22 it's gone, you know. You always can make more
23 of it.

24 But you destroy this land, you can't make
25 more of it. You just can't. Proven fact.

1 Common sense.

2 You know, so I just wish that you guys would
3 use your common sense. I realize what you are
4 doing. And don't be that person that messed it
5 up for everybody. We all know who that is.
6 Don't be that person. That's all I'm saying.
7 You guys have a good day.

8 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
9 Sophia Blackcloud.

10 SOPHIA BLACKCLOUD: Hello, again. I'm just
11 going to finish off where I left off before I
12 was stopped, so. Okay. So again, I was reading
13 out of literature that I thought was important
14 to my people and for the people of this town to
15 hear.

16 So it is time for -- it is time for us to
17 begin. It is time for our tired nation to stop
18 right where we are and look back, see where we
19 came from and where we are now and where we are
20 going on.

21 It is time to remember Sitting Bull and all
22 that he was and is to our people and to our way
23 of life. And it is time to talk with respect
24 within our nation.

25 We must demand it without compromise.

1 Compromise comes once respect is obtained. In
2 1990 December 15th -- or, I'm sorry, in 2017,
3 December 15th will be exactly 127 years since
4 the murder of Chief Sitting Bull.

5 On that day the mourning of our Chief must
6 come to an end. December 15, 2017 let us gather
7 together as one people, as one nation, a nation
8 the Great Spirit chose out of all other Indian
9 nations to send us, his messenger, the sacred
10 White Buffalo Calf Pipe Woman, to bring us the
11 sacred pipe to worship him and to share with all
12 other nations.

13 On December 15th, let 100 drums gather. It
14 must be a time of celebration, of living, of
15 rebuilding and moving on. Our warriors will
16 sing a new song, a song of a new beginning, a
17 song of victory. Let our warriors sing clear
18 and loud, so the heartbeat of our people will be
19 heard by Sitting Bull and all of our ancestors
20 in a spirit world. And our two worlds will
21 become one again.

22 We are a whole new generation fully educated
23 and very capable of assuming control over our
24 own affairs, capable of doing business with the
25 U.S. and other countries with far greater effect

1 than what is being done now.

2 We are a new generation capable of
3 rebuilding our nation. And this is the
4 direction we must move in and move together as
5 one. The direction we will move in is that of a
6 modern high-tech world, but in that world there
7 is nothing that we are not capable of
8 understanding.

9 In our new generation we now have people
10 educated in almost every kind of job skill that
11 exists. We must learn to use our education
12 towards rebuilding our nation and securing a
13 better future for our children. We now have the
14 knowledge of two ways of life. And we can
15 balance them equally.

16 Knowledge with wisdom, high-tech machinery,
17 with tradition, Indian businessmen listening to
18 their chiefs, and chiefs listening to Indian
19 businessmen.

20 Chief Sitting Bull lives in the spirit
21 world. We know this is true. We know also that
22 he would want us to live and rebuild so our
23 children can have good, happy lives and the old
24 people restful last years.

25 Many times Sitting Bull would ride around

1 camp and sing messages to the people. Let us
2 send to our great Chief a new song to sing when
3 he rides around the people in the spirit world.

4 Look at our children, they are going to live
5 again. They are going to live again, Sitting
6 Bull says as he rides.

7 On December 15th, let us gather as one
8 nation to honor Chief Sitting Bull and the
9 warriors who stand by him. Let us together --
10 let us come together to honor his dreams, his
11 words of wisdom, his strength, his leadership.
12 Let us gather to celebrate his memory with
13 pride, commitment, and a new beginning and a new
14 direction. Let us come together as one and then
15 move together as one.

16 We are the Great Teton Lakota Nation. Let
17 the spirit of Sitting Bull leap with joy that
18 his people have been awakened.

19 Written by Warrior Who Comes Home Alone.

20 And so that's all that I wanted to read and
21 I'm done. I've gotten a chance. Thank you.

22 But then I had a couple of other things that
23 I wanted to bring up aside from speaking with my
24 people.

25 REGIONAL JUDICIAL OFFICER SUTIN: You just

1 have a minute, so yeah.

2 SOPHIA BLACKCLOUD: Okay. Well, I was -- I
3 went around the town and I tried to find ice.
4 So in doing that, certain people wanted to tell
5 me directions, others didn't. Mainly children
6 were happy to oblige, once again with just
7 kindness.

8 And so it seemed that everybody was afraid
9 to come here to speak or to have a voice in this
10 town. So it makes me wonder what is being
11 taught.

12 You said your wife was a teacher,
13 Mr. Hollenbeck. Your poor son. I'm sorry,
14 Mark, I feel for you. I really do. I really
15 do. You're not being taught the truth.

16 AUDIENCE MEMBER: You don't know what the
17 truth is.

18 SOPHIA BLACKCLOUD: You're not being taught
19 about other people's rights. About water.
20 You -- it just, it makes me afraid for the
21 future of the children that --

22 REGIONAL JUDICIAL OFFICER SUTIN:
23 Ms. Blackcloud, I'd ask that you address your
24 comments to us and not to people in the crowd.

25 SOPHIA BLACKCLOUD: Okay. So then I wanted

1 to know, your local dump right now, I guess
2 there's being drilling -- oil drilling done
3 here. And I want to know where that water and
4 whatnot is being dumped. Because I heard from
5 your local town that it's being dumped right
6 back into your dump.

7 It's not being disposed of properly. So
8 therefore, it's back in your water that you're
9 drinking. Your water jugs are not filled in the
10 back. The water we gave you, you're not
11 drinking.

12 REGIONAL JUDICIAL OFFICER SUTIN:

13 Ms. Blackcloud, your time is up.

14 SOPHIA BLACKCLOUD: That's all I have to
15 say. Again, it feels more cold like, and it
16 just -- it doesn't feel -- if I owned half of a
17 town or mayored it, I'm sure that I'd have half
18 the town behind me as well.

19 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
20 Ms. --

21 SOPHIA BLACKCLOUD: Money doesn't rule
22 everything. Think with your heart.

23 REGIONAL JUDICIAL OFFICER SUTIN: Tasina
24 Smith.

25 TASINA SMITH: Hi, again. I spoke

1 yesterday. My name is Tasina Sapa Win. That
2 means Black Shawl Woman in Lakota.

3 (Speaking in indigenous language.) Of the
4 Cheyenne River Sioux Reservation which is, you
5 know, running right through -- the Cheyenne
6 River, runs right through this town. This
7 beautiful, beautiful town.

8 So I'm back again to first say this: First
9 and foremost, this is completely illegal. The
10 Black Hills belong to the Lakota. You need to
11 recognize that right now, and foremost, before
12 we can go on with anymore permits.

13 We need to start recognizing our treaty,
14 recognizing our children's future. I mean, we
15 have people who, you know, are so ignorant of
16 the facts here. Really, ultimately, when I hear
17 from locals or from the opposite side, all they
18 can really come up with is money as a pro to
19 this permit being granted. That's really all it
20 is.

21 So when we have, like, all this statistics
22 showing and then also evidence of Crow Butte and
23 what happened there, and how the uranium mine is
24 still not cleared up, and you left a mess there,
25 where it's contaminating that water in the

1 earth. I mean, you have the facts showing. So
2 the only other thing I can think of other than,
3 you know, ignorance or, you know, greed is
4 racism at its finest.

5 And for you to be the agency that is going
6 to either grant or deny this permit, you're
7 either granting or denying racism in your
8 country yet again, and inflicting genocide on
9 our people yet again.

10 Because when it leaks and it contaminates
11 this -- the aquifers underneath, it will go
12 right into the Cheyenne River, which then goes
13 into the Missouri River, which 20 million people
14 downstream rely on for drinking water, these are
15 facts we're looking at. Not opinions. We need
16 to go by facts.

17 Another fact, you know, 500 years my people
18 have been through attempted genocide. Where
19 this country has been built on the backs of
20 slaves and off the profits of indigenous
21 resources, on stolen land. Recognize this.
22 Understand it.

23 Do you have a conscience? Will you be able
24 to go home if you were to permit this and
25 actually look into your family's eyes and said

1 you did something right?

2 It's scary. You guys literally have the
3 power of my child's future in your hand, and his
4 health and his well-being. You have that power,
5 not me, not any of these people in this room.
6 You do. Please make the right decision. You
7 know what's right.

8 We shouldn't even be coming to this and
9 having to voice this. We shouldn't. You
10 shouldn't have to hear what we have to say. You
11 should already know what's right. I mean, you'd
12 be a mass murderer. Would you be able to let
13 that rest on your conscience until the day you
14 die?

15 Please don't poison me. And most of all,
16 please don't poison my son. Please don't poison
17 those children that were just standing up here.
18 That took a lot of courage to sing you a song.
19 I know when I was that age, I didn't have that
20 strength and courage. But they get it.

21 Our children are the betterment of our
22 generation. They have -- they know more. They
23 get history, they have recent history with us.
24 They'll know all this. They'll find out.

25 Don't be that part of history where you're

1 going to be the ones to blame. When we're all
2 contaminated, when we're all dying of cancer at
3 skyrocket rates. Don't be that. Be somebody
4 that we can actually trust. You're the
5 Environmental Protection Agency. Live up to
6 your damn name, please.

7 Because if you don't start respecting us,
8 not -- I'm not just talking about indigenous
9 people, I'm taking about everybody, every single
10 one of us, you are our relatives, too. We have
11 the same hearts, the same minds, the same lungs,
12 the same air we breathe, the same food we eat,
13 the same atmosphere we're exposed to.

14 We live in this world together. We need to
15 co-exist together. And find renewable energy,
16 and ways with renewable energy. Start funding
17 towards it. Because this addiction to uranium
18 and fossil fuels is killing you.

19 REGIONAL JUDICIAL OFFICER SUTIN: Ms. Smith,
20 your time is up.

21 TASINA SMITH: All of us. Respect us,
22 please. Or once again, expect more of us to
23 come. Thank you.

24 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
25 Kathleen Bailey.

1 KATHLEEN BAILEY: Again, the profound truth
2 of the chronic abuse of the indigenous peoples.
3 I can't -- I'm here -- I -- I've already spoken
4 three times and presented all that I was capable
5 of presenting.

6 Right now, I apologize, but I want to throw
7 out some data response to some of what was said
8 by those from the industry.

9 I learned -- I had to learn about
10 radionuclides because of an issue that we had at
11 a simple water treatment plant, and the levels
12 of radionuclides that were ever increasing in
13 the byproducts, the sludge. And so I learned
14 all about it from EPA documents mostly.

15 And they list each of the radionuclides,
16 uranium, radium-226, -228, radon, gross alpha,
17 gross beta, and all the cancers that are
18 associated with chronic exposure for each of
19 those radionuclides.

20 There is a dose concentration. There's low
21 risk. Those are low risk radiation sources.
22 However, low risk does not mean zero risk, and
23 the risk that they were talking about is the
24 risk of developing these diseases.

25 They are called scol- -- and I cannot

1 pronounce it. I don't even know if I spelled
2 it. I wasn't prepared to talk about this.

3 But again, it's from an EPA document,
4 stochastic effects from chronic exposure to low
5 dose radiation. And it is heartbreaking to hear
6 this sort of thing danced around as if it is
7 nothing.

8 And I heard this when this particular
9 municipality was continuing to say it's no more
10 radiation than that from living in a brick home.
11 The concentration when you are pulling out these
12 naturally occurring radioactive elements
13 changes. The exposure changes when you're
14 working with them.

15 Yellowcake is an intensified collection of
16 uranium. Uranium is pretty much the mother of
17 radium-226, -228, radon, gross alpha and gross
18 beta. And you are concentrating, you are
19 pulling it out from its natural form in doing
20 that.

21 Every time you have any radioactive element,
22 radionuclide in low dose, and that volume
23 changes through whatever the processing, water,
24 pulling out it out of the water, whatever, you
25 are creating a higher value in that Rem, the

1 real Rem, that is calculated with the picocuries
2 per liter or picocuries per gram when dealing
3 with a soil or a sludge.

4 It's picocuries per gram if you're dealing
5 with water solution; it's picocuries per
6 liter -- I think that it's liter, and I
7 apologize, I forget. I wasn't prepared to talk
8 about this.

9 And then if you're going to identify the
10 Rem, which is the measurement of the radiation
11 dose that you are getting every year in that
12 exposure to that low dose radiation, it's called
13 millirem.

14 It's in -- it's in -- it's the measure of
15 the radiation equal to -- a Rem is a radiation
16 equal to X-ray, an equal level of X-ray. And it
17 does take a high level of Rem from radionuclides
18 to equal that.

19 But the result is health effects. And the
20 result is most often cancer. Not everyone in
21 the population will get it. More people are
22 more susceptible than others, that's why it's
23 called a low risk.

24 Those who are statistically calculated to be
25 susceptible to that are a small enough number

1 that they are actually almost written off. But
2 when you are the person who has developed the
3 cancer because of your reaction to that chronic
4 exposure to that level of radiation, it is 100
5 percent risk.

6 So it should never be minimized, laughed at,
7 or talked about. It took almost a year to prove
8 the difference between living in a brick home
9 and being exposed to the sludge that this
10 particular municipality started storing in 2011,
11 '12, '13, '14, and '15 sludge at levels that
12 were so high, when they finally uncovered on
13 site where these people were working -- and this
14 is a water plant -- and the levels skyrocketed
15 in 2009.

16 And they started stockpiling when the state
17 finally stopped them from disposing in a
18 municipal treatment -- municipal landfills
19 because the radiation level went through the --
20 was so high. Or, not the radiation level, the
21 concentration of the radionuclides were so high.

22 REGIONAL JUDICIAL OFFICER SUTIN:

23 Ms. Bailey, your time is up. I need you to wrap
24 up, please.

25 KATHLEEN BAILEY: Okay. So when they

1 started stockpiling, a year later three people
2 got cancer at the site and two of their wives.
3 The following year, another person got cancer at
4 the site, in '13. He's one of the few still
5 surviving and fighting. And one -- another one
6 got it in 2015 and died. All on the same site.

7 And we get the same thing. You can't prove
8 that it's associated with the radiation from the
9 radionuclides. And it is -- it breaks my heart
10 to have otherwise intelligent, capable engineers
11 and workers and everything minimize -- and --
12 minimize a proven consequence of this level of
13 exposure, even at low dose. And I just had to
14 throw that out.

15 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
16 Ms. Bailey.

17 Isaiah Cox.

18 ISAIAH COX: Well, I'm Isaiah Cox. And I'm
19 here a third time. And I'm here because I
20 believe that we can save this land, you know.
21 And anyway, so, let's take the earth, you know,
22 as a paint, like a painted circle, but it's
23 filled with different kind of paints on the
24 inside. So it's pretty much beautiful.

25 And anyway, if you start taking the uranium

1 out, and just fill it in with, like, black
2 paint, you know, it becomes less beautiful, as
3 you can tell because -- and, if you continue to
4 do this, eventually the whole circle will become
5 black. So that's one reason why you shouldn't
6 do this.

7 Also is that, when you really think about
8 it, water is money. I mean, think about it.
9 Because humans eat, like, animals and stuff and
10 vegetables. But the -- like, the vegetables and
11 the animals, they need water. So water is
12 pretty much the same as life.

13 And well, that life will feed other life,
14 and that life would end up being humans, and we
15 would -- and we created the money pretty much.
16 So in that case, water is money then. If you
17 try to continue to mine the uranium, water will
18 become money.

19 So one more thing is that, why would you try
20 to ruin such a beautiful place, you know?
21 That's something I don't get, because if you're
22 trying to -- like, if you're doing this for
23 money, all right, think about it, you don't --
24 well, money isn't the solution to everything.

25 So why would you do this if you can easily

1 just get what you need by actually working for
2 it instead of doing something, like, the easy
3 way, you know? So.

4 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
5 Mr. Cox.

6 Kenneth Barker.

7 KENNETH BARKER: Thank you for this
8 opportunity to speak. My name is Kenneth
9 Barker. I didn't come prepared to speak. I've
10 been branding calves this afternoon, so I'm not
11 dressed for it, but I -- I just feel compelled
12 to let you know that if wasn't for uranium, I
13 wouldn't be here in Edgemont.

14 I've lived here for pretty close to 60 years
15 now. I'm 83 years old now. And also, I have
16 some land in -- down near Crow Butte mining at
17 Crawford, Nebraska, adjoins that. And the well
18 is okay, everything is good.

19 And I'd just ask you not to let this
20 emotional propaganda overpower our engineering
21 studies. Thank you.

22 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
23 Mr. Barker.

24 Don Matt.

25 DON MATT: Thank you. One young man here

1 said we need some smiles. So I'm going to share
2 something that a tribal elder shared at a tribal
3 interpolicy meeting. He said, They tell me that
4 they called us Indians because Columbus was
5 looking for India. He said, I'm just really
6 thankful that Columbus was not looking for
7 Turkey.

8 After hearing some of the testimony here
9 today, I went home and I went to the internet,
10 and I've given the EPA a copy of this. I
11 believe you still have it.

12 This is from the Congressional Research
13 Service. And it's called: Indian Water Rights
14 Under the Winters Doctrine, An Overview. This
15 is an 11-page review, and I'm going to quote
16 from it.

17 Starting off in the summary, the first
18 paragraph says: Although the federal government
19 has authority to regulate water, it typically
20 defers to the states to allocate water resources
21 within the state.

22 The federal government maintains certain
23 federal water rights, though, which exist
24 separate from state law.

25 I'm going to repeat that: Separate from

1 state law.

2 You as the EPA are the guardians of federal
3 water rights.

4 And this is from the Congressional Review:
5 In particular, Federal reserved water rights
6 often arise in questions of water allocation
7 related to federal lands, including Indian
8 reservations. Indian reserved water rights were
9 first recognized by the U.S. Supreme Court in
10 Winters versus United States in 1908.

11 Under the Winters Doctrine, when Congress
12 reserves land, i.e. for an Indian reservation,
13 Congress also reserves water sufficient to
14 fulfill the purpose of the reservation.

15 And I'm going to skip to page 5, to the
16 heart of the matter here. Paragraph heading,
17 Water Quality: Degradation of water quality
18 would undermine the water's use for reservation
19 purposes. Courts have recognized water quality
20 as another element of Indian reserved water
21 rights. Reserved water rights.

22 Federal courts -- federal courts have ruled
23 that reserved water rights holders can seek
24 legal protection from water quality degradation
25 by other water users. Specifically, in the

1 United States versus Gila Valley Irrigation
2 District, the Ninth Court approved a District
3 Court's finding that a reserved water right was
4 impaired when other users' actions increased the
5 salinity of water used by a tribe for irrigation
6 of agricultural crops.

7 I spent two and a half years as a Native
8 American journalist for the Confederate, Salish,
9 and Kootenai tribes in Montana. And this I can
10 assure you, that as an EPA, this issue of water
11 rights, water quality, mining, it looks to me
12 like you're going to be facing this over and
13 over and over in your careers.

14 I would urge you to become acquainted with
15 this doctrine. I would urge you to defend and
16 protect water quality rights. And thank you.

17 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
18 Mr. Matt.

19 Tonia Stands.

20 TONIA STANDS: Hello. I'm Tonia Stands.
21 I'm from Oglala, South Dakota. And I just want
22 to put this sign up and let everybody look at
23 this. And it says: Crow Butte uranium is
24 evidence, is the proof of what can go wrong.

25 And we stand on this. Right now we live --

1 the White River goes by the Crow Butte uranium
2 mine and, you know, we keep -- we keep -- we're
3 debating over scientific and -- you know,
4 yesterday in Hot Springs I got to speak and I
5 got cut off and -- but what I want to state is
6 this, is you know, our spirituality, you know,
7 when you think about the reality of our -- of
8 our -- of our genocide and surviving that in
9 many various forms that have -- that we have
10 endured, you know, you think about smallpox
11 blankets, you think about tuberculosis, you
12 know, the Spanish flu, you know, these are real,
13 real close to my heart because my grandmas
14 passed this collective knowledge, intellectual
15 knowledge, intellectual property, you know, and
16 that comes through us.

17 You know, and we collect this knowledge.
18 And what's in me is my grandmas and my grandpas.
19 We come from Oglala into Oelrichs, and Oglala
20 into Smithwick. Those are natural tracks for us
21 to gather our plants, our berries, our tipsila.
22 There's so many out there.

23 And when you think about, again, water is
24 life and how it puts back into those natural
25 elements. And we don't have that right. And

1 we'll keep talking about religious freedom. You
2 know, 1978, we don't -- we don't have access to
3 our religious freedom.

4 They are -- they are governed by national
5 parks, and we can't just go and pray and, you
6 know, and do the things that we used to do here.
7 We can't do that. And right here where the
8 proposed site is, I mean, we don't want expose
9 too much, but it's not a checkerboard. You
10 remember that. It is not a checkerboard.

11 And you can't take it and say, Oh, this area
12 is sacred, this area is sacred, this area is
13 sacred. Well, I'm going to go and mine here and
14 here where it's not sacred. You know, they did
15 that at Crow Butte.

16 Oh, we know it's sacred, we know that. And
17 they didn't consult with us. Again, they went
18 to the state, the state preservation officer of
19 Nebraska. And don't detach yourself on that.
20 That is the Environmental Protection Agency.
21 Again, we keep reiterating that.

22 And how do you -- how do you have a program
23 in-situ leach recovery program with these
24 guidelines, and you're a federal agency, and
25 your -- your chain of command is higher than the

1 state. And how are you not going to regulate or
2 look at Crow Butte?

3 And you know what, they -- I went to these
4 NRC hearings. And you know what they said in
5 there? They have a monitor system. Go back
6 through the record, they have a monitor system.

7 They have from the beginning, failures upon
8 failures. And I sat in that courtroom and they
9 said, For sure way that we have a monitor system
10 is the snow. The snow melts and let's us know
11 that we have a leak because our monitor systems
12 are failing.

13 And do they tell us that? No, they don't
14 tell us that. You know, we live down on the
15 reservation, and you have to really look at this
16 and they are sitting up right here in front of
17 our reservations.

18 They don't want us here. They want us gone
19 so they can keep profiting off our sacred Black
20 Hills. So they are on purposely doing this.

21 And my grandmas, they used to come and camp
22 here in the park. That was our campsite. They
23 detached us from that and sent us to the
24 reservations. And then when we -- we got a pass
25 to get off the reservation, we come back here to

1 our home, we can't come back here.

2 They -- they have this land, land steal in
3 the Black Hills. So these guys, you know,
4 immigrants came in here, and all they had to do
5 was get a tool, a mining tool, strike it on the
6 ground, and there's a whole land area that
7 became theirs. That's how easy this land grab
8 in the Black Hills became.

9 You stole it. Our treaties, they confined
10 us to the reservations, took our rights. And
11 they were -- when we were off our reservation
12 area, you know, we had to get a pass. And they
13 would hunt us down. And each town, they have a
14 hang site where, if they caught an Indian, they
15 would take them up there and hang them.
16 Rapid City has a hangman's cliff.

17 And this is the reality. We can't come
18 here, you know. You're supposed to protect the
19 environment, you know. You have this in-situ
20 leach mining program, and it destroys our
21 aquifers.

22 And you remember those are in Lakota. Those
23 are in Lakota. Those -- those are -- the mining
24 operations that they want to operate in, those
25 are in Lakota.

1 REGIONAL JUDICIAL OFFICER SUTIN: Your time
2 is up, Ms. Stands. Thank you.

3 REGIONAL JUDICIAL OFFICER SUTIN: Robert
4 White Mountain.

5 ROBERT WHITE MOUNTAIN: I'm back. Thank
6 you, EPA, for doing this hearing. I just wanted
7 to say a couple things. First of all, something
8 is kind of troubling. During the break here I
9 was outside, and I really didn't feel good
10 about -- we came here, you know, just to voice
11 our opinions.

12 And in return, we had some young men from
13 this town go by and say racial things to us.
14 Try to incite a riot, you know. It's like, why
15 is this turning racial? Why? We're all human
16 beings. It doesn't need to get racial. Doesn't
17 need to get violent. I just wanted to share
18 that.

19 And also, you know, I feel for this
20 community. And I realize that -- I've traveled
21 all over this country, and I see that, as I feel
22 for this community because you have no jobs, you
23 have no growth here, you know.

24 This -- there was a mine here for 29 years,
25 but this town didn't even grow. It was just

1 like a little dead town, you know, really.
2 It's -- you're depending on this gold to come in
3 and revive this town.

4 There's like gazillions of towns all over
5 this United States that are in just the same
6 situation as this town. All kinds of towns that
7 are dying in this whole country. So I feel for
8 this community in that respect.

9 At the same time, I've been learning more
10 about this process. I talked with the manager,
11 Mr. Hollenbeck. I just met him, so I don't mean
12 to -- but he was explaining part of the stuff
13 there, you know, and he -- at the end he said,
14 It's a theory. It's a theory of how we're going
15 to be able to clean the water and be able to get
16 it back to its -- you know, at least drinkable
17 or usable. It's a theory.

18 So that kind of like, this doesn't sit good
19 with me, you know. Then I talked to a couple
20 local residents here, and they informed me, you
21 know, that -- how -- I was always wondering how
22 the Cheyenne River got poisoned to the point
23 where my relatives in Cheyenne River can't even
24 eat the fish. They come out two heads, three
25 heads, four heads, whatever. Why can't they eat

1 the fish?

2 So I kind of -- I talked to a local resident
3 here, and he informed me, you know, that
4 there's -- okay. So, part of this process that
5 you say is safe, that might be possibly safe.
6 But the biggest thing, you know -- and everybody
7 is talking about the aquifers and all this.
8 That's important, you know.

9 And another thing that wasn't really talked
10 about too much today that I have noticed is the
11 waste. I was told that there's billions -- not
12 billions. But there's tons of waste right over
13 here, buried under some dirt, and nothing will
14 grow on top of that. It's all white.

15 So that was -- that was the -- the way that
16 they handle this waste, was just to make more
17 waste and to destroy more land here. So that's
18 like -- that's my concern.

19 Okay. Now, you're saying the process itself
20 might be a little bit safe, and you're still --
21 you know, it's a theory that could be safe.
22 It's not 100 percent. There's no 100 percent
23 guarantee that it's completely safe. I haven't
24 heard that yet.

25 And so then you've got all these tailings.

1 You got all the leftovers from all this mining.
2 And that's poisoning. So I really had -- how is
3 it that Cheyenne River can't eat their fish?
4 Then I find out today why. I didn't really
5 know. I didn't understand why.

6 It's because where they are mining, this
7 mine here back in '60 to '89, they had a whole
8 bunch of tailings and a whole bunch of this dust
9 that was piled up there somewhere by the river.
10 And then the rains came and it pushed it out
11 into the river, and it poisoned all the way down
12 the river.

13 So it might -- it might not -- it may not
14 have poisoned here, but it poisoned everybody
15 down river. And that's something you guys have
16 to live with. This community has to live with
17 that.

18 You know, I'm not trying to give you any
19 kind of -- any kind of emotional dramatics or
20 any kind of emotional, you know, what do you
21 call it -- the other guy said, whatever,
22 propaganda, you know.

23 I'm just talking to you straight up.
24 Straight up. Man to man, person to person,
25 human to human. That's all. No propaganda.

1 Not trying, to you know, to do anything. I'm
2 just trying to inform my opinion of what I
3 think. You know, whatever I feel, that's it.
4 No propaganda. That's all.

5 And I was here 36 years ago over here. I
6 kind of noticed, I went out -- we got surrounded
7 over here when we were trying to defend our
8 sacred site from what they did here, what they
9 mined here. We defended over there 36 years
10 ago.

11 That was in Craven Canyon, to defend some
12 great sacred writings here. I noticed that
13 there was a couple guys around here. Because we
14 got surrounded. You know, they surrounded us
15 and it was under siege. I remember that. All
16 we were doing was trying to protect. That's
17 all.

18 But anyway, that's a little -- I wanted to
19 finish that. But like I said, I feel for this
20 community, you know, because it's -- you know, I
21 look around, I see it. But you know, there's
22 also other ways to make money.

23 You could bring industry here, you can bring
24 alternative energy and create a plant here, some
25 sort of jobs. You could get all kinds more jobs

1 than what you're go- -- what you're investing in
2 with this mine.

3 Because you're going to kill lots more
4 people that are down river because you -- you
5 have no way -- there's no way to -- EPA -- I
6 mean, I see all these tailings, all these open
7 mines, and all these open -- all these, whatever
8 you call these, test sites, boreholes. They are
9 not covered and they are dangerous. They are
10 still dangerous to the people.

11 It's like, we need to really clean those up.
12 You know, as EPA, as a person to person, we
13 really need to clean these up. It's very
14 important, you know, environmental protection,
15 protect the environment. And I really feel
16 that. So I thank you for your time. I know
17 you're going to cut me off, so.

18 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.

19 At this time, those are all the folks that
20 have signed cards to speak. If there is anyone
21 in the audience who has not spoken yet today or
22 over the course of the last four days who would
23 like to get up and speak, please do so.

24 Have you signed a -- will you sign a card?

25 DOROTHY ROWLAND SUN BEAR: Yeah, I'll sign

1 one.

2 REGIONAL JUDICIAL OFFICER SUTIN: Dorothy
3 Rowland Sun Bear.

4 DOROTHY ROWLAND SUN BEAR: Hello, everyone.
5 My name is Dorothy Rowland Sun Bear. I come
6 from Wounded Knee, South Dakota on the
7 Pine Ridge Indian Reservation. Concentration
8 Camp 344.

9 I oppose this uranium mine. America is
10 built on stolen land. They came and stole our
11 land here, and they are digging holes
12 everywhere. The Black Hills are like cheese
13 now. So full of holes. We need to stop.

14 Recognize our treaties and stop mining in
15 our Black Hills. Stop stealing our natural
16 resources. Leave it in the ground. Thank you.
17 (Speaking in indigenous language.)

18 AUDIENCE MEMBER: Excuse me. I'll be right
19 outside having lunch. We found a turtle out
20 here, and it's got a deformed face from your
21 waters.

22 AUDIENCE MEMBER: Would you like to see your
23 turtle? We found it out here sitting eating
24 lunch.

25 AUDIENCE MEMBER: We're going to take it to

1 safer waters. Would never put it back in these
2 waters.

3 AUDIENCE MEMBER: Thank you.

4 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.
5 Anyone else who would like to get up and speak
6 who has not spoken yet?

7 Carol Harding.

8 CAROL HARDING: I'm Carol Harding. I have
9 lived in Edgemont about maybe 43 years. I'm a
10 school teacher. I've been a teacher for
11 probably 30 years here in our system, and this
12 isn't typical of me at all. And thank God none
13 of my family is here.

14 So, but I came as a school teacher here. I
15 married a hometown boy, who has grown up here
16 and lived here all his life except for when he
17 went to college. And so we've made our home
18 here. We've raised three kids.

19 They are adults and they come home all the
20 time. They drink our water all the time. I
21 would never, ever advocate something that I felt
22 would harm my children or my grandchildren,
23 because now I have two precious babies. And
24 they come home to our house still.

25 And I'm passionate about where I live, and

1 how I feel our community is. And it saddens me
2 when other people come from other places and put
3 down our community when they don't live here.

4 And I'm also very sad about whoever the
5 young people were that said racial slurs to you,
6 because that is not typical of the majority of
7 our kids. And I'm sorry that they did it.

8 I wish I knew who it was, because I'm also a
9 huge advocate for our kids here. But I'm
10 also -- I clomp on them pretty hard when they
11 don't respect adults or other nationalities or
12 whatever it is. There's no excuse for rudeness,
13 and I'm sorry. I apologize for them.

14 But anyways, I'm very happy to live here.
15 I'm very happy to raise my children here, and
16 now our grandchildren come. And I support the
17 project. I don't know a lot about it, that's
18 very true.

19 But I do know some of the people involved,
20 and I trust their judgment with the scientific
21 knowledge they have and who they have turned to
22 for evidence and the answers. Thank you.

23 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
24 Ms. Harding.

25 Anyone else in the audience who has not

1 spoken who would like to?

2 (Pause.)

3 Is there anyone else who would like to
4 speak? I'll ask for those folks who have spoken
5 several times, your comments needs to be
6 addressed to us and not to the folks in the
7 audience. Okay. Thank you.

8 AUDIENCE MEMBER: Do it any ways.

9 WANIYA LOCKE: I, too, am an educator. I
10 have a bachelor's in Native American studies and
11 linguistics, and I also have a criminal justice
12 degree. And as an educator, I truly cannot look
13 at my students and honestly tell them that they
14 have a bright future when uranium mines, copper
15 mines, pipelines are coming in every single day.

16 I, too, am from South Dakota. I, too, grew
17 up in small-town communities. And we are
18 literally in the last stages. The environmental
19 fight has been going on since the '60s, and
20 we're still fighting it. We're still fighting
21 racism. We're still fighting social injustice
22 and social ailments.

23 And what it all boils down to is money. All
24 our social ailments boil down to money, and
25 corporations that have bought out our governing

1 systems.

2 So I'm asking you guys to really listen to
3 the people that have come here with good hearts,
4 good words, and that actually have -- that
5 actually have a stake in this.

6 Because my children do have a stake in this.
7 They have a claim to the Hills. My children are
8 truly Lakota-Dakota children that speak their
9 own language, that can trace back their
10 ancestors nine generations prior to Europeanism.
11 So they should be acknowledged, and their future
12 should be considered.

13 So as a true educator that has taught at
14 prestigious schools, that has taught at private
15 schools, that has taught at college level, I
16 honestly cannot look at my students and tell
17 them, You can grow up to be anything you want,
18 but you can't have clean air, you can't have
19 clean water.

20 So this uranium permit is huge. You have to
21 factor in all the other water uses that are
22 going on in South Dakota. And the fact that DAP
23 had a spill in Spink County after we stood out
24 there for nine months protesting against a
25 government system and our worst fears were

1 confirmed.

2 And then you look at Washington at the same
3 time again, Hanford, Washington has got
4 evacuated, a small town like this. This is
5 evidence. This is pure, 100 percent evidence.
6 This is not fact or opinion, nor does it have to
7 do with race. An entire town was evacuated.

8 So as an educator, I'm asking you to really
9 think of the future. Why should we educate
10 young children if I can't promise them drinking
11 water or clean air?

12 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.

13 KATHLEEN BAILEY: Sorry. Me again.

14 REGIONAL JUDICIAL OFFICER SUTIN: Please say
15 your name for the court reporter.

16 KATHLEEN BAILEY: Kathleen Bailey. I just
17 wanted to respond, and I don't know if this
18 was -- I am one of the people who are coming
19 from outside of the state. And I wanted to
20 assure you, this is not disrespect to the state,
21 this is not disrespect to the citizens.

22 This is my personal concern for a rare
23 commodity, our water. And I am a treehugger
24 since the '60s. I was born in '49. So, yes, I
25 am an environmentalist by heart. And all, from

1 the amoeba on up to all life forms, I'm just
2 focusing on this water, because this is the
3 source.

4 I'm trying to stop an action that threatens
5 an incredibly important aquifer that actually
6 addresses more than just the state of
7 South Dakota. So it is a huge, huge, important
8 moment that this be stopped. Because this
9 changes everything if it is approved, and it
10 will impact many aquifers all over our country.

11 So it is also a selfish thing that I am
12 doing, because I live, my children live, my
13 grandchildren live, even though I'm not a
14 South Dakotan. But I had to come up here
15 because I feel so much about this, because I
16 can't stand silent while it's happening
17 anywhere.

18 So I'm not here to offend anyone, and I do
19 have a different side than some of you, a
20 different opinion. But I'm not here to offend
21 you. I'm here to defend water, from my
22 perspective. I don't mean for anybody to take
23 it personally, as far as a citizen here. Thank
24 you.

25 REGIONAL JUDICIAL OFFICER SUTIN: Ms. Kile.

1 Please state your name.

2 NANCY KILE: My name is Nancy Kile. I'm
3 from Sioux County, born and raised in Crawford,
4 Nebraska where Crow Butte is at. And I just
5 wanted to -- to state about the fact that we
6 aren't welcome here and we're intruding on this
7 community, and those kind of things.

8 And I just want to say that I trusted my
9 town leadership as well. I trusted what was
10 going on in my hometown.

11 During the time period -- my mom was a
12 resident of Crawford area since the early '40s.
13 She came from Oglala. She came to Crawford
14 because there was jobs there.

15 There's an Indian camp on the White River
16 there, and we still would like it surveyed and
17 reach into that history of the people who
18 belonged to this land in this area. And we're
19 going to do that. And we're going to -- we're
20 going to talk about Squaw Creek Road that runs
21 by Cameco.

22 But Mom was a resident of Crawford. She was
23 diagnosed with lung cancer in 2004, and died in
24 Crawford nine months later. During that time
25 period, one of the many Crow Butte Resources

1 documented violations was an undetected
2 poisonous spill into an underground source of
3 drinking water that lasted for two and a half
4 years, spanning from July 1, 2003 through
5 March 31, 2006.

6 My community, since the Oglala Sioux Tribe
7 and the consolidated intervenors has interrupted
8 that mine permitting, something happened. My
9 community became encased in racism and hate.

10 My people said that Oglala were trying to
11 take their jobs. My people criminalized poverty
12 on each other and Oglala. Something happened.
13 That is not who we are. Don't become that.
14 Don't let your kids become that because you want
15 tax relief and school funding and money for your
16 elites. Don't sell out to a federal agency.

17 REGIONAL JUDICIAL OFFICER SUTIN: Ms. Kile,
18 I'm sorry. But I asked --

19 NANCY KILE: And talk about private
20 property --

21 REGIONAL JUDICIAL OFFICER SUTIN: Ms. Kile.

22 NANCY KILE: -- rights. Thank you.

23 REGIONAL JUDICIAL OFFICER SUTIN: Is there
24 anyone else who would like to make a comment?
25 We have five minutes left. Okay. Mr. Matt.

1 (Comments from Audience Members.)

2 REGIONAL JUDICIAL OFFICER SUTIN: I will
3 allow both to make comments. When Mr. Matt is
4 done, you can go, Ms. Stands.

5 DON MATT: When you look at the graph of the
6 price of uranium, it looks like a roller coaster
7 going down, down, down, and just rolling out on
8 the flat.

9 Now, the question that this raises is, why
10 is this being pushed so hard?

11 One of the things I heard today was that
12 they have the option of bringing in outside
13 nuclear waste and storing it here. There may
14 not be a market for uranium anytime shortly, but
15 if they are bringing in outside nuclear waste,
16 my concern is, Mr. Hollenbeck has complained
17 about having to jump through countless hoops.

18 Now, if we start bringing in outside people
19 who have not been reviewed and have not had to
20 jump through those countless hoops, what is
21 happening to our protection?

22 I would suggest that if outside nuclear
23 waste comes in, that it should be only somebody
24 who has had to jump through every stinking hoop
25 that Mark Hollenbeck has had to jump through.

1 Because they may not have the reliability that
2 Mark has. And that's my final comment.

3 REGIONAL JUDICIAL OFFICER SUTIN: Thank you,
4 Mr. Matt.

5 Ms. Stands, you can get up and speak. I
6 will just say that comments need to be addressed
7 to us, not to the audience, and relevant to the
8 decision before us.

9 TONIA STANDS: Okay.

10 REGIONAL JUDICIAL OFFICER SUTIN: Thank you.

11 TONIA STANDS: Yeah, I think everything that
12 I'm talking about is relevant. And I'm Tonia
13 Stands, and I'm from Oglala, South Dakota again.

14 What I want to say is, you know, we have --
15 we have this origin story amongst our people,
16 and it goes back, way, way back when this land
17 was all red.

18 So, you see the strip that goes around the
19 Black Hills, we're tied to this land and we
20 lived in a time when all the nations, every
21 single animal, nation, had -- we all talked the
22 same language.

23 We had this magical communication between
24 each other. And then we came to this time where
25 we were going to -- we were going to lose that.

1 So they all came amongst each other, you know.
2 It wasn't one that was on top of the other, or
3 there wasn't a chain of command. They were all
4 equal.

5 Now, when they came together, they had this
6 great race around the Black Hills. And whoever
7 would win this race was going to be the chosen
8 nation that was going to be the voice.

9 Because we were going to come into this time
10 exactly right now, when these -- there's every
11 single creature -- you know, you have these
12 crazy words for them. But we don't have those
13 words. Those are our relatives. And we have
14 direct relationships with them still.

15 And you know, we stand against this uranium
16 because, you know, we come from people that
17 drink out of these rivers. That's why the
18 Cheyenne River people are called Cheyenne River,
19 you know.

20 It's not this town that's Cheyenne River,
21 it's these people that were forced out of here
22 that migrated that way, were forced onto the
23 reservation, and they are Cheyenne River.

24 So let that sink in. Okay. There's a whole
25 nation, a reservation that -- that gets direct

1 impact from this river. And that tells so much.
2 It connects us to this land, you know.

3 We have names for these rivers, and they are
4 our relatives that we treat them on human
5 status. They are just like us, and they have
6 families, and we honor that. And we -- and we
7 respect that.

8 Well, going back to this origin story of the
9 red earth, when the earth was red. Well, you
10 know, they did that great race around the Black
11 Hills and, you know, ever since I was born, ever
12 since I was a baby, my dad took me on that great
13 race.

14 Every year we run around the Black Hills.
15 It's called the Sacred Hoop 500-mile run. And
16 I've been running that for as long as I can
17 remember. And they -- they keep that. We have
18 to keep that alive. And we have to be -- we owe
19 that oath and we owe that duty to these silent
20 nations that can't talk, that's in those waters.

21 And we hunt. I can't even hunt no more.
22 You cut them up, and they are all, like,
23 deformed, and there's white spots all over them.
24 And down here, my dad lives, you know, we go on
25 that river. We can't even go get our boats and

1 go down the river like we want to. We can't do
2 that on White River, either.

3 And you know, our tribe monitors these water
4 tests, so I have water tests from our tribe.
5 And in the spring, when the run-offs come down
6 in this community of Red Shirt, it floods all
7 the way over to where my family lives. And I
8 have to go tell them, Don't go by the river.
9 Leave the river alone. Go, you know.

10 And these people in this community, I go
11 down each house, each house like that, and I --
12 I'm not lying, every one of my relatives in
13 their house has cancer. And my auntie that
14 lives at the corner house, she survived three
15 cancers.

16 I can't bring them here to tell their story,
17 so I'm here for them. And I'm here for the
18 silent nations that we owe. We owe that oath
19 and that duty to them to speak up for them.

20 And I never -- I never ever wanted to,
21 like -- I humble myself and I'm not -- you know,
22 I'm not -- I don't want to over-exert myself,
23 but you know what, ever since we've been on this
24 journey to stand against uranium, these animals,
25 animals, you know, our relatives, have shown

1 themselves to us.

2 We've gone to Wind Cave, and we don't -- we
3 don't -- we don't -- we know the buffaloes are
4 powerful. Those are our people. Those are our
5 relatives. We know that so they -- they come to
6 us and it's like they are -- they are sharing
7 their pain and they are sharing their stories
8 with us.

9 And you know today, we were just standing
10 out here, we didn't ask for this little turtle
11 to come across. And you know, he went across,
12 and so we took him off the road because we
13 didn't want him to get hit.

14 Well, when we picked him up and looked at
15 him, his whole beak, his whole little mouth is
16 deformed. I'm like why, why, do they keep
17 showing themselves to us?

18 You know, we have a duty, and we're
19 fulfilling that duty. And there's no -- they
20 don't -- they don't speak about that. And that
21 is old. That is old. As old as that red dirt
22 is, that is as long as we have to protect this.

23 And it's a prophesy, and that's what we're
24 fulfilling. They are encroaching and they won't
25 stop. And you know, over here on the winding

1 side, just like full of uranium. They are
2 coming. They are coming. And our aquifers are
3 going to get destroyed.

4 It's all going down around us, and this is
5 our, kind of the last, you know, refuge from
6 what's going on around us. And we always live
7 on this, we were raised on this. The Black
8 Hills were never for sale.

9 With the U.S. government, they have a big
10 bank account. They want us to take that money
11 because they know they stole it. They know
12 that. They have that money. And they want us
13 to take that money, oh, it's like the feel bad
14 money, the guilt money, the blood money, you
15 know, the resource money.

16 Nothing. We just want it back. We just
17 want to go pray like we always did. We want to
18 have that freedom. And for me, because I've
19 always come here with my grandmas, I want to
20 continue that and keep that alive for them. You
21 know, and I want to see the relatives.

22 And I'll end on this note. This morning we
23 were leaving. And I really don't believe in
24 these animals coming up to me. I feel like Snow
25 White. But they keep coming.

1 And this morning in Red Shirt, my boyfriend,
2 he said something, and he, "hagh." He said
3 that. And this bird came out of nowhere and it
4 was eating, and it was, "hagh, hagh" and it was
5 looking down upon us in this tree.

6 And I said, Look at him, he's saying -- he's
7 laughing at you because you said that. You
8 know, because we were arguing about packing and
9 what to take and what not to take. And then,
10 "hagh," and you know. See, you're supposed to
11 listen to me. See, we were having this little
12 discussion.

13 Well, this bird was just standing there.
14 And they never show themselves to us. And I'm
15 telling you, this is a spiritual connection.
16 And it's older. We can go back through billions
17 of years, not thousands and centuries, billions.
18 And we can name how the earth, how this universe
19 began. So please remember that. Okay? Thank
20 you.

21 REGIONAL JUDICIAL OFFICER SUTIN: Thank you
22 very much. Thank you all for coming. We really
23 do appreciate every single comment that was
24 provided by all of you today, the last three
25 days, our day in Valentine. We take all these

1 comments seriously.

2 We will review them and we will be
3 thoughtful as we move forward in our -- in
4 determining how to move forward with these
5 permits.

6 So I will conclude the -- these hearings
7 today. I will just say one more time, the
8 comment period closes on May 19th, and we will
9 be taking written comments until that time. So,
10 if you have other things that you would like to
11 say that you haven't had a chance to say, please
12 submit your comments.

13 The hearing is now closed. Thank you all.

14 (The proceeding was concluded at 8:07 p.m.)

15

16

17

18

19

20

21

22

23

24

25

STATE OF SOUTH DAKOTA }
COUNTY OF PENNINGTON } SS:

I further certify that I am neither counsel for, related to, nor an employee of any of the parties to this case and have no interest, financial or otherwise, in its outcome.

/s/ Jacqueline K. Perli

Registered Professional Reporter
Black Hills Reporting
1601 Mt. Rushmore Rd., Ste. 3280
Rapid City, SD 57701
605.721.2600
Notary Public
My commission expires: May 9, 2019

< Dates >.

11/17/16 98:9.

1890, December 15th 52:1.

1990 december 15th 150:2.

2017, December 15th 150:3.

December 15, 2017 150:6.

December 15th 150:13, 152:7.

December 26, 2012 34:6.

July 1, 2003 187:4.

July 2017 32:19.

June, 2017 197:24.

March 31, 2006 187:5.

March 6, 2017 3:4, 9:1, 99:20, 117:6.

March 6th 27:11.

May 11, 2017 1:7.

May 19th 7:1, 27:11, 119:17, 196:8.

May 19th, 2017 3:22.

May 9, 2019 197:33.

November 16 99:18.

November 17, 2016 98:4, 99:19.

November 2016 99:11.

October 26, 2010 35:11.

\$8 97:1.

'12 162:11.

'13 162:11.

'13. 163:4.

'14 125:19, 162:11.

'15 162:11.

'49. 184:24.

'60 176:7.

'75. 90:21.

'89 176:7.

'95 86:15.

-228 159:16, 160:17.

/s/ 197:25.

.

.

< 1 >.

1 14:24.

1,000 82:11.

10,000 8:11, 21:14, 21:22.

100 34:15, 150:13, 162:4, 175:22, 184:5.

11- 98:3.

11-page 166:15.

12 129:22.

120 12:24, 14:9, 133:15.

125 128:25.

127 52:20, 53:5, 53:6, 150:3.

13 88:23, 88:24, 88:25, 89:4, 89:6, 89:7, 89:9, 89:10,

1 131:20.
 13. 84:24.
 2 **140** 112:24, 112:25.
 146 98:2.
 3 **146.4** 97:13.
 146.4. 97:16.
 4 **149** 57:16.
 15 35:3, 77:25, 142:10.
 5 **150-year** 127:5.
 1500 34:13.
 6 **154** 129:11.
 16 60:12, 98:19, 99:5, 99:21.
 7 **16-** 21:18.
 16. 100:1.
 8 **160** 85:3.
 1601 197:29.
 9 **17** 57:11, 84:25, 142:8.
 18- 91:9.
 10 **1851** 57:18.
 1868 57:17.
 11 **1890** 52:1.
 19-year-old 32:15.
 12 **1908.** 30:18, 167:10.
 1950s 30:22, 72:2.
 13 **1952** 30:19.
 1960 61:19.
 14 **1960s** 30:22.
 1963 35:6.
 15 **1970s** 31:10.
 1976 31:7.
 16 **1977** 141:11.
 1978 170:2.
 17 **1981.** 91:9.
 1986. 141:11.
 18 **1989.** 31:8, 61:20.
 1992 144:15, 144:18.
 19 **1992.** 143:17.
 1994 95:25.
 20 **1:00** 1:8.
 1st 197:24.
 21 .
 .
 22 < 2 >.
 2,000 82:9.
 23 **2.5** 78:20.
 20 30:9, 77:25, 156:13.
 24 **2000s** 51:12.
 2004 186:23.
 25 **2007** 33:25.
 2009 34:17.

1 **2009.** 162:15.
 2011 162:10.
 2 **2012** 144:22.
 2013 125:18, 127:2.
 3 **2014** 35:9.
 2015 163:6.
 4 **2017** 150:2.
 21,000 21:18.
 5 **22** 70:21.
 24 39:11.
 6 **25** 120:6, 135:17.
 27 57:8, 57:12.
 7 **28.** 35:9.
 29 113:7, 113:17, 173:24.
 8 **2:00** 4:8.
 9 .
 .
 10 **< 3 >.**
 3 14:24.
 30 34:24, 35:12, 60:14, 180:11.
 11 **30-day** 27:6.
 30-foot 85:24.
 12 **310** 1:11.
 3280 197:29.
 13 **344.** 179:8.
 35 92:12, 92:17, 95:6.
 14 **36** 111:16, 177:5, 177:9.
 36- 115:2.
 15 **37** 90:24.
 37. 32:11.
 16 **3:30** 64:20.
 3:30. 64:17.
 17 **3:40** 64:20.
 3:40. 64:18.
 18 .
 .
 19 **< 4 >.**
 4 98:2.
 20 **4,000** 58:13.
 40 85:4, 85:15, 86:2, 97:13, 97:16, 98:2.
 21 **40,000** 115:2.
 400,000 32:21.
 22 **404** 141:14.
 40s 84:15, 186:12.
 23 **43** 180:9.
 24 .
 .
 25 **< 5 >.**
 5 86:8, 167:15.
 500 88:9, 89:20, 112:10, 114:7, 146:24, 146:25, 147:2,

1 156:17.
 500-mile 191:15.
 2 **50s** 51:11, 62:10, 69:22, 84:15.
 57701 197:30.
 3 **57735** 1:12.
 5:00 4:8, 4:10, 116:11.
 4 **5:03** 116:16.
 .
 5 .
 < 6 >.
 6 **6-feet** 87:8.
 60 56:18, 84:23, 165:14.
 7 **60-foot** 87:15.
 605.721.2600 197:31.
 8 **60s** 62:11, 69:23, 84:15, 182:19, 184:24.
 61 122:6.
 9 **666** 90:1.
 6:00 4:10, 4:11, 117:21.
 10 **6:00.** 116:12.
 6:05 116:16.
 11 .
 .
 12 < 7 >.
 7 84:24.
 13 **70s** 51:12, 62:11, 69:23.
 .
 14 .
 < 8 >.
 15 **8,000** 14:22.
 800 90:12.
 16 **80s** 31:10.
 83 165:15.
 17 **8:00** 117:21.
 8:00. 4:12.
 18 **8:07** 1:8, 196:14.
 .
 19 .
 < 9 >.
 20 **90** 124:12.
 93 35:9.
 21 **97** 124:19.
 [sic] 35:12.
 22 .
 .
 23 < A >.
 A-L-A-R-A 48:6.
 24 **abandoned** 17:17, 98:15.
 ability 2:11, 197:16.
 25 **able** 24:14, 29:2, 46:20, 62:4, 71:7, 78:15, 118:13,
 121:5, 156:23, 157:12, 174:15.

1 **above** 8:20, 20:10, 21:14, 23:23, 25:8, 34:8, 43:12,
 44:11, 89:8, 116:2, 116:7.
 2 **Abrahamic** 82:10.
 Abrey 76:11, 76:12, 76:14.
 3 **abuse** 159:2.
 Academy 35:8.
 4 **accept** 54:11, 63:12.
 access 170:2.
 5 **According** 33:20, 34:3.
 Accordingly 38:12.
 6 **account** 194:10.
 accounting 90:9.
 7 **accurate** 197:15.
 achievable 48:7, 48:16.
 8 **achievable.** 48:12, 48:14.
 acid 35:19, 41:24.
 9 **acknowledge** 32:24, 66:19, 81:18.
 acknowledged 183:11.
 10 **acknowledgement** 80:16.
 acknowledging 37:20.
 11 **acquainted** 168:14.
 acquired 83:17.
 12 **acres** 85:3, 85:4, 85:15, 112:24, 112:25.
 across 19:13, 22:21, 29:13, 83:12, 90:13, 193:11.
 13 **Act** 8:1, 34:7, 81:22, 96:21, 128:12, 141:15, 142:13,
 145:14.
 14 **action** 6:10, 6:24, 119:3, 185:4.
 actions 140:24, 168:4.
 15 **active** 23:21, 71:8.
 activities 3:7, 101:5, 117:9.
 16 **activity** 17:10, 18:5, 21:7, 132:3.
 Acts 22:7, 141:11.
 17 **actual** 33:4, 86:4.
 Actually 15:18, 22:20, 23:6, 23:17, 24:12, 24:15,
 18 25:13, 29:19, 45:9, 75:13, 81:13, 83:2, 110:12,
 120:9, 122:23, 127:18, 156:25, 158:4, 162:1, 165:1,
 19 183:4, 183:5, 185:5.
 Adam 39:23, 40:12, 115:16.
 20 **add** 18:13.
 added 12:16, 14:20.
 21 **addiction** 53:12, 158:17.
 addition 2:8.
 22 **additional** 10:9, 94:25, 100:12.
 address 78:15, 153:23.
 23 **addressed** 182:6, 189:6.
 addresses 185:6.
 24 **adequate** 22:10.
 adjoins 165:17.
 25 **adults** 78:1, 79:16, 180:19, 181:11.
 advanced 121:9.

1 **advertisements** 123:5.
advocate 180:21, 181:9.
 2 **Affairs** 2:24, 150:24.
affect 87:4, 116:7.
 3 **affected** 29:16, 56:1, 56:2, 56:3.
affecting 141:23.
 4 **affects** 109:25.
afflicted 106:13.
 5 **afford** 114:25.
afraid 153:8, 153:20.
 6 **aftereffects** 33:9.
afternoon 2:2, 7:13, 27:25, 28:6, 41:4, 71:21, 74:18,
 7 102:17, 111:4, 116:25, 146:13, 165:10.
afterwards 136:12.
 8 **age** 157:19.
agencies 10:18, 43:18, 79:1.
 9 **Agency** 2:6, 7:8, 34:1, 34:12, 40:8, 40:15, 43:19,
 50:20, 56:14, 74:4, 97:2, 116:21, 119:24, 125:8,
 10 126:18, 128:20, 142:10, 156:5, 158:5, 170:20,
 170:24, 187:16.
 11 **agents** 144:11.
ages 88:7.
 12 **ago** 3:25, 10:5, 28:25, 29:4, 57:11, 57:17, 81:4, 82:6,
 82:9, 88:9, 89:20, 103:17, 111:16, 122:6, 130:13,
 13 132:1, 133:15, 139:5, 145:17, 146:4, 177:5, 177:10.
agree 69:19.
 14 **agreed** 98:25, 99:3.
agreement 67:8.
 15 **agricultural** 35:23, 168:6.
ahead 22:18, 77:21, 110:18, 145:8.
 16 **ailments** 182:22, 182:24.
ain't 114:10.
 17 **Air** 83:21, 91:12, 158:12, 183:18, 184:11.
akicita 76:23.
 18 **Alabama** 144:21.
alarming 100:12.
 19 **alcoholism** 53:11.
Alex 147:22, 147:23, 148:2.
 20 **alive** 146:2, 191:18, 194:20.
alkali 87:5.
 21 **allocate** 166:20.
allocation 167:6.
 22 **allow** 5:10, 8:22, 18:4, 21:2, 35:21, 58:13, 58:15,
 82:23, 105:9, 118:1, 124:25, 136:18, 148:12, 188:3.
 23 **allowed** 15:4, 21:24, 71:10, 84:25.
allowing 34:14, 85:13.
 24 **almost** 26:5, 130:15, 151:10, 162:1, 162:7.
Alone 125:25, 152:19, 192:9.
 25 **alpha** 13:10, 13:12, 13:17, 13:18, 102:25, 142:6,
 142:9, 159:16, 160:17.

1 **already** 9:2, 20:11, 38:18, 46:25, 48:2, 68:22, 102:23,
 102:24, 103:5, 138:19, 157:11, 159:3.
 2 **alternative** 114:20, 115:10, 177:24.
 3 **Although** 166:18.
 4 **amateur** 39:19.
 5 **Amen** 72:1.
 6 **America** 56:15, 57:11, 75:1, 179:9.
 7 **American** 110:3, 168:8, 182:10.
 8 **Americans** 76:16, 89:22.
 9 **amoeba** 185:1.
 10 **among** 105:12, 105:19.
 11 **amongst** 189:15, 190:1.
 12 **amount** 14:25, 86:14, 138:13.
 13 **amounts** 40:20.
 14 **Analysis** 9:22, 9:23, 20:17.
 15 **analyze** 15:11.
 16 **ancestors** 57:19, 91:22, 105:24, 150:19, 183:10.
 17 **ancestral** 57:15, 57:24, 58:2.
 18 **ancient** 85:16.
 19 **and/or** 141:18.
 20 **Anderson** 30:1, 30:6, 32:6, 61:15, 61:16, 61:17, 63:5.
 21 **ANDREW** 106:19, 106:20.
 22 **Anhydrite** 23:7, 23:9, 23:13, 23:20, 23:21, 24:2,
 24:16, 24:18, 24:21, 25:18.
 23 **animal** 189:21.
 24 **animals** 35:23, 36:11, 61:4, 67:21, 136:15, 138:11,
 25 148:15, 164:9, 164:11, 192:24, 192:25, 194:24.
annotated 17:25.
answer 71:12, 94:18, 118:18.
answered 15:9, 77:10, 77:11.
answering 5:24, 71:11.
answers 181:22.
anti-christ 88:13, 88:17, 88:22, 89:24.
anybody 28:14, 30:13, 43:4, 57:12, 185:22.
Anyhow 28:10.
anytime 188:14.
Anyway 36:23, 70:11, 96:9, 101:15, 101:21, 101:23,
 109:9, 112:21, 163:21, 163:25, 177:18.
anyways 51:7, 181:14.
apart 67:12, 124:24.
apologize 30:3, 80:8, 104:3, 159:6, 161:7, 181:13.
Apparently 46:13, 80:22.
appeal 7:8, 119:24.
Appeals 7:9, 119:25.
appeared 28:18.
appears 28:22.
application 11:7, 47:12, 60:3, 126:8, 141:7.
applications 63:24.
applied 141:18.
Appraisal 142:1.

1 **appreciate** 32:2, 131:7, 195:23.
approval 3:17, 97:18, 117:17.
 2 **approve** 18:4, 58:12, 73:4, 100:7.
approved 18:18, 78:22, 78:23, 100:21, 100:23, 100:25,
 3 168:2, 185:9.
Aquifer 1:4, 3:16, 3:20, 5:23, 7:5, 8:5, 8:6, 9:11,
 4 9:12, 11:23, 12:15, 12:23, 15:1, 19:10, 19:13,
 19:16, 20:5, 21:12, 21:21, 22:9, 22:20, 22:25, 23:1,
 5 23:3, 23:4, 23:6, 23:8, 23:25, 25:7, 31:13, 31:14,
 34:10, 34:20, 45:5, 58:14, 59:19, 62:19, 62:20,
 6 62:25, 64:13, 69:6, 86:11, 96:18, 97:8, 97:14,
 97:17, 97:20, 98:19, 98:22, 100:7, 100:9, 117:16,
 7 117:20, 119:21, 124:25, 125:1, 128:4, 128:10,
 185:5.
aquifers 9:5, 9:16, 13:2, 13:25, 22:15, 22:16, 25:6,
 8 25:16, 34:9, 45:3, 45:12, 45:13, 45:18, 45:25, 46:2,
 9 46:5, 63:18, 96:24, 98:12, 99:14, 141:8, 142:13,
 142:15, 142:22, 156:11, 172:21, 175:7, 185:10,
 10 194:2.
aquifers. 34:16.
 11 **Arapahoe** 58:3.
archaeological 73:5, 73:24.
 12 **archaeologists** 78:23.
Archive 144:19.
 13 **area** 3:6, 3:11, 3:12, 3:18, 3:19, 9:1, 9:3, 9:6, 9:13,
 9:16, 9:25, 11:13, 11:18, 11:20, 11:21, 13:8, 13:23,
 14 14:5, 15:18, 16:3, 18:13, 21:10, 21:17, 22:5, 24:5,
 24:8, 24:9, 24:17, 25:20, 28:7, 28:11, 29:11, 29:21,
 15 38:5, 38:7, 38:22, 45:3, 46:16, 46:24, 47:7, 61:17,
 61:24, 63:11, 65:12, 65:21, 67:4, 67:24, 68:5,
 16 69:12, 82:3, 85:17, 87:5, 90:23, 95:14, 95:15,
 95:20, 96:23, 97:14, 100:3, 117:7, 117:12, 117:13,
 17 117:18, 117:20, 120:7, 121:14, 124:24, 129:14,
 130:15, 132:6, 133:17, 134:23, 135:3, 135:7, 136:23,
 18 137:8, 137:15, 138:3, 141:19, 142:24, 143:21, 144:7,
 144:8, 146:11, 170:11, 170:12, 172:6, 172:12,
 19 186:12, 186:18.
areas 18:5, 23:5, 23:12, 33:8, 63:22, 139:10, 141:7,
 20 141:24.
Argentine 133:18, 133:20, 133:22.
 21 **argue** 34:24.
arguing 195:8.
 22 **arise** 167:6.
Army 89:2, 141:4, 141:13, 143:15, 143:17, 143:19,
 23 144:5, 144:14, 144:16, 144:18, 144:21, 144:22,
 144:23.
 24 **around** 23:13, 53:6, 80:16, 82:8, 82:11, 93:23, 95:9,
 99:20, 103:10, 109:15, 113:5, 113:8, 122:14, 124:2,
 25 141:1, 151:25, 152:3, 153:3, 160:6, 177:13, 177:21,
 189:18, 190:6, 191:10, 191:14, 194:4, 194:6.

1 **arrangement** 16:18, 16:19.
arrow 15:25.
 2 **arrows** 16:25, 19:2, 89:5.
Artesian 46:4, 141:2, 142:12, 142:16, 142:19, 143:1,
 3 143:2, 143:9, 143:12, 143:18.
article 34:5.
 4 **Ashenafi** 3:1.
aside 105:13, 152:23.
 5 **aspect** 21:9, 42:12, 42:13.
Assessment 144:15, 144:19.
 6 **assist** 2:9.
associated 159:18, 163:8.
 7 **assuming** 121:2, 150:23.
assure 168:10, 184:20.
 8 **assured** 6:2, 118:19.
astray 104:23.
 9 **ate** 115:17.
Atlas 127:4.
 10 **atmosphere** 146:15, 147:2, 158:13.
Atomic 32:21, 32:22, 33:2.
 11 **attack** 52:3.
attempted 156:18.
 12 **attempting** 73:13.
attended 96:14.
 13 **attention** 40:25, 48:21.
attitude 73:11.
 14 **audacity** 65:22, 66:20.
Audience 43:25, 48:11, 48:13, 71:18, 72:1, 84:6, 84:9,
 15 94:8, 94:10, 95:14, 96:5, 153:16, 178:21, 179:18,
 16 179:22, 179:25, 180:3, 181:25, 182:7, 182:8, 188:1,
 189:7.
aunt 130:14.
 17 **auntie** 192:13.
Australia 103:9.
 18 **authority** 96:20, 166:19.
authorize 21:25.
 19 **authorized** 7:25.
automatically 15:4.
 20 **automobiles** 32:18.
availability 43:14.
 21 **available** 6:5, 6:11, 6:15, 39:11, 101:1, 118:23,
 119:4.
 22 **Avenue** 1:11.
aversion 133:9.
 23 **awakened** 152:18.
aware 104:24.
 24 **away** 17:4, 23:12, 23:14, 24:17, 35:5, 52:14, 53:2,
 66:16, 85:13, 86:5, 89:16, 102:12, 108:12, 126:25,
 25 129:11, 132:20.
awesome 148:19.

1 **awful** 132:5.
 awhile 14:7.
 2 **Azarga** 33:21, 47:13, 47:15, 57:5, 57:24, 59:24, 60:8,
 109:4.
 3 **Azarga/powertech** 47:15, 97:25, 98:16, 98:21, 101:7.
 .
 4 .
 < B >.
 5 **babies** 91:10, 180:23.
 baby 59:6, 191:12.
 6 **bachelor** 182:10.
 back 2:20, 2:23, 4:11, 5:10, 14:18, 14:23, 22:19,
 7 22:25, 56:21, 62:25, 69:1, 69:21, 81:14, 82:17,
 90:21, 99:11, 101:15, 112:2, 112:20, 113:21, 114:18,
 8 118:13, 120:21, 121:23, 126:7, 126:15, 126:20,
 127:2, 135:17, 139:20, 139:22, 140:6, 149:18, 154:6,
 9 154:8, 154:10, 155:8, 169:24, 171:5, 171:25, 172:1,
 173:5, 174:16, 176:7, 180:1, 183:9, 189:16, 191:8,
 10 194:16, 195:16.
 back-and-forth 5:16.
 11 **backbone** 79:23.
 background 7:12, 7:18, 30:13, 41:8, 41:15, 43:16.
 12 **backs** 156:19.
 backup 19:21.
 13 **bacteria** 138:12.
 bad 43:2, 72:12, 77:4, 109:6, 109:7, 138:19, 194:13.
 14 **Bailey** 95:22, 95:23, 96:6, 96:15, 101:9, 101:10,
 158:25, 159:1, 162:23, 162:25, 163:16, 184:13,
 15 184:16.
 balance 142:23, 151:15.
 16 **bandwagon** 105:4.
 bank 194:10.
 17 **bar** 90:5.
 Barack 33:25.
 18 **barely** 127:6.
 barium 26:15, 26:16, 35:16.
 19 **Barker** 37:10, 37:11, 41:2, 165:6, 165:7, 165:9,
 165:23.
 20 **base** 22:7, 57:19, 87:16, 98:22.
 Based 8:14, 11:22, 20:15, 31:24, 31:25, 99:12.
 21 **baseline** 20:7, 20:12, 20:14, 20:17, 128:20.
 baseline. 34:21.
 22 **basement** 68:21.
 basements 68:20, 102:25.
 23 **basically** 112:22.
 basics 113:21.
 24 **Basin** 42:15, 141:23.
 basis 5:14, 28:20, 38:11.
 25 **Bates** 80:5, 80:6, 80:9, 80:10.
 battle 57:7.

1 **beak** 193:15.
Bear 178:25, 179:3, 179:4, 179:5.
 2 **beast** 90:3.
beautiful 33:8, 123:7, 137:8, 137:9, 155:7, 163:24,
 3 164:2, 164:20.
beauty 52:12, 52:25.
 4 **Beaver** 12:5, 60:12, 141:13, 141:19.
became 172:7, 172:8, 187:9.
 5 **become** 34:2, 53:19, 104:13, 136:5, 136:17, 137:14,
 139:14, 150:21, 164:4, 164:18, 168:14, 187:13,
 6 187:14.
becomes 107:17, 164:2.
 7 **bed** 85:4, 85:12, 86:11.
began 10:4, 61:18, 82:9, 195:19.
 8 **begin** 4:18, 18:25, 20:12, 117:25, 149:17.
beginning 81:23, 81:24, 150:16, 152:13, 171:7.
 9 **begun** 72:15, 72:16.
behalf 61:3.
 10 **behavior** 16:11.
behind 126:19, 154:18.
 11 **beings** 79:25, 113:22, 113:23, 173:16.
beliefs 66:1.
 12 **believe** 29:1, 29:5, 38:18, 47:24, 95:3, 125:18,
 135:12, 163:20, 166:11, 194:23.
 13 **belong** 155:10.
belonged 186:18.
 14 **belongs** 145:20.
below 21:22, 22:2.
 15 **ben** 83:9.
benefit 44:10, 73:16.
 16 **benefits** 107:9, 131:23, 139:13.
berries 169:21.
 17 **beside** 105:15.
Besides 129:23.
 18 **best** 33:22, 69:20, 95:2, 95:5, 95:10, 107:10, 109:5,
 123:23, 128:8, 197:16.
 19 **bet** 87:20, 87:21, 94:1.
beta 159:17, 160:18.
 20 **better** 27:4, 104:21, 110:25, 151:13.
betterment 157:21.
 21 **Bible** 115:14, 145:18.
bicycles 121:1.
 22 **bicycling** 81:5.
big 36:15, 55:13, 58:25, 62:24, 86:16, 125:16, 125:18,
 23 136:9, 148:20, 194:9.
bigger 106:4, 114:23.
 24 **biggest** 105:4, 122:17, 175:6.
Bill 27:24, 27:25, 28:5, 28:6, 28:10, 81:21, 88:19,
 25 129:11.
billion 97:1.

1 **billions** 33:19, 112:4, 112:5, 175:11, 175:12, 195:16,
 195:17.
 2 **bird** 195:3, 195:13.
birds 114:22, 114:24.
 3 **bit** 4:4, 4:6, 7:11, 7:19, 13:1, 48:3, 70:3, 82:13,
 145:23, 148:8, 175:20.
 4 **bitter** 85:13.
Black 44:24, 45:8, 46:4, 46:7, 48:24, 48:25, 50:17,
 5 50:25, 51:9, 52:10, 54:1, 54:3, 54:7, 55:6, 57:22,
 65:15, 65:19, 67:3, 70:5, 73:2, 81:7, 91:23, 141:4,
 6 142:1, 142:24, 143:15, 143:19, 143:20, 144:5,
 144:16, 144:20, 144:23, 145:22, 147:18, 155:2,
 7 155:10, 164:1, 164:5, 171:19, 172:3, 172:8, 179:12,
 179:15, 189:19, 190:6, 191:10, 191:14, 194:7,
 8 197:28.
BLACKCLOUD 149:9, 149:10, 153:2, 153:18, 153:23,
 9 153:25, 154:13, 154:14, 154:21.
blackness 53:5.
 10 **blame** 53:13, 158:1.
BLANCHFLOWER 106:19, 106:20, 145:10.
 11 **blankets** 147:6, 169:11.
blasts 32:22.
 12 **blatant** 73:9.
bled 14:25.
 13 **bleed** 77:5.
blisters 134:25.
 14 **blizzard** 127:5.
block 13:18, 33:17.
 15 **blood** 74:25, 82:3, 113:25, 194:14.
blow 68:12.
 16 **blue** 14:3.
Board 7:9, 120:1, 127:4.
 17 **boarding** 89:13.
boats 51:14, 88:9, 191:25.
 18 **bodies** 90:16.
body 13:19, 124:13.
 19 **boil** 182:24.
boils 182:23.
 20 **Bombed** 33:12.
bombs 122:18.
 21 **bond** 104:23.
book 33:12, 76:24.
 22 **border** 11:15, 11:16.
Boreholes 17:18, 64:8, 178:8.
 23 **born** 30:17, 41:5, 54:24, 63:10, 66:16, 70:19, 184:24,
 186:3, 191:11.
 24 **bosses** 110:17.
bottled 98:24.
 25 **bottom** 66:15, 67:4.
bought 83:18, 123:8, 182:25.

1 **boundaries** 133:17, 141:9.
boundary 11:14, 12:24, 14:8, 19:1, 19:5, 19:9, 19:10,
 2 19:13, 19:17, 19:18, 20:5, 20:15, 22:21, 125:1.
box 101:20, 133:21.
 3 **Boy** 76:15, 180:15.
boyfriend 195:1.
 4 **brackish** 138:8, 138:10.
branch 89:5.
 5 **branding** 165:10.
Brandon 70:10.
 6 **breach** 18:5, 18:10.
breaches 18:7.
 7 **break** 4:9, 4:10, 64:18, 173:8.
breaking 116:12.
 8 **breaks** 163:9.
breathe 13:20, 158:12.
 9 **breathing** 146:14.
breccia 23:16.
 10 **brick** 160:10, 162:8.
brief 7:16.
 11 **briefly** 44:22, 117:1, 117:5.
bright 182:14.
 12 **bring** 33:19, 59:24, 60:24, 62:13, 64:11, 65:21, 78:17,
 84:22, 127:15, 132:4, 140:15, 150:10, 152:23,
 13 177:23, 192:16.
bringing 58:17, 188:12, 188:15, 188:18.
 14 **Brit** 82:5.
Britain 82:4.
 15 **broader** 39:8.
broken 83:19.
 16 **brother** 32:15.
brothers 104:22, 140:5.
 17 **brought** 12:18, 14:15, 65:12, 88:10, 88:11, 88:16,
 115:12, 121:4, 129:6.
 18 **Brown** 102:16, 102:17, 102:18, 103:23.
brutality 73:9.
 19 **BS** 146:22.
Bud 86:4.
 20 **Buffalo** 69:21, 150:10.
buffaloes 193:3.
 21 **building** 37:19, 90:15.
builds 38:9.
 22 **built** 80:22, 156:19, 179:10.
Bull 51:20, 52:1, 52:4, 52:17, 53:17, 53:18, 54:16,
 23 149:21, 150:4, 150:19, 151:20, 151:25, 152:6, 152:8,
 152:17.
 24 **Bull.** 51:19.
bump 55:21.
 25 **bunch** 140:2, 176:8.
burdening 133:4.

1 **Burdock** 11:18, 11:21, 141:17.
Bureau 11:2.
 2 **buried** 91:23, 141:3, 144:4, 175:13.
burning 104:16.
 3 **bush** 49:10, 49:14.
business 31:4, 131:22, 150:24.
 4 **businessmen** 151:17, 151:19.
busts 113:12.
 5 **Butte** 57:4, 69:11, 79:6, 127:20, 127:22, 129:1,
 155:22, 165:16, 168:23, 169:1, 170:15, 171:2, 186:4,
 6 186:25.
Buttes 90:23.
 7 **buy** 51:6, 71:3, 90:3.
byproducts 159:13.
 8 .
 9 .
 < C >.
calcium 23:9.
 10 **calculated** 161:1, 161:24.
calculations 34:25, 99:13.
 11 **Calf** 150:10.
call 4:12, 15:21, 30:2, 41:12, 57:22, 69:5, 77:10,
 12 77:12, 85:2, 89:11, 108:3, 117:22, 124:14, 124:15,
 176:21, 178:8.
 13 **called** 22:22, 23:15, 34:10, 47:5, 51:18, 70:9, 80:10,
 81:13, 81:14, 82:4, 88:17, 109:4, 115:15, 129:7,
 14 159:25, 161:12, 161:23, 166:4, 166:13, 190:18,
 191:15.
 15 **calves** 165:10.
Cameco 56:24, 57:4, 57:9, 58:7, 58:21, 59:24, 64:11,
 16 186:21.
Camp 66:11, 85:18, 90:14, 152:1, 171:21, 179:8,
 17 186:15.
campground 85:16.
 18 **camps** 90:12.
campsite 96:2, 171:22.
 19 **Cancer** 32:11, 32:16, 33:10, 70:18, 70:22, 70:24,
 70:25, 71:2, 75:12, 75:13, 75:15, 75:18, 75:22,
 20 75:24, 90:23, 94:3, 94:5, 94:7, 94:8, 103:3, 109:9,
 124:15, 142:7, 158:2, 161:20, 162:3, 163:2, 163:3,
 21 186:23, 192:13.
cancers 135:1, 159:17, 192:15.
 22 **Cane** 147:22, 147:23, 148:2.
Canyon 83:11, 177:11.
 23 **cap** 84:14, 89:2, 89:3.
capable 150:23, 150:24, 151:2, 151:7, 159:4, 163:10.
 24 **capacities** 31:7.
capitalism 88:18, 89:11.
 25 **Capping** 90:25, 91:1, 91:2, 91:5.
captive 34:2.

1 **car** 87:14.
carbon 12:16.
 2 **carbon-free** 39:10, 39:15, 71:22.
carbonic 35:19.
 3 **card** 4:13, 4:15, 117:23, 178:24.
cards 104:2, 178:20.
 4 **care** 114:6, 120:13, 123:17, 123:19, 127:13.
careers 168:13.
 5 **Carl** 131:12, 131:13, 131:14.
Carol 180:7, 180:8.
 6 **carriers** 54:10.
carries 33:16.
 7 **carry** 43:8, 54:24, 79:21.
cartoon 14:11.
 8 **case** 2:12, 8:18, 8:21, 11:8, 62:21, 108:18, 108:19,
 164:16, 197:20.
 9 **cases** 31:20, 42:8.
Casper 42:15.
 10 **casual** 64:6.
categories 142:5.
 11 **Catholic** 1:10.
cattle 38:9, 46:19, 46:22.
 12 **Caucasia** 82:14.
Caucasians 82:15.
 13 **caught** 172:14.
cause 17:10, 21:7, 97:4, 106:5, 144:3.
 14 **caused** 70:25.
causes 23:10, 24:3, 49:16, 75:22, 94:9.
 15 **Cavalry** 52:3.
Cave 66:17, 67:11, 193:2.
 16 **caved** 87:13.
caves 87:9.
 17 **celebrate** 152:12.
celebration 150:14.
 18 **cement** 91:3.
center 67:15.
 19 **centered** 141:1.
centuries 104:11, 195:17.
 20 **certain** 8:23, 65:14, 77:7, 128:16, 153:4, 166:22.
certainly 29:23, 37:22.
 21 **certified** 129:24.
certify 197:12, 197:18.
 22 **cetera** 42:17, 42:20.
CFR 97:16.
 23 **chain** 170:25, 190:3.
challenge 57:10.
 24 **challenged** 57:12.
chance 5:8, 41:10, 55:20, 122:22, 130:2, 137:5,
 25 139:22, 152:21, 196:11.
change 16:6, 16:17, 33:4, 55:2, 102:5.

1 **changed** 86:24, 86:25, 87:2.
 2 **changes** 22:21, 142:16, 147:2, 160:13, 160:23, 185:9.
 3 **channels** 141:12.
 4 **chanting.** 84:6.
 5 **chaos** 106:8.
 6 **character** 22:21.
 7 **characterization** 17:8, 21:6.
 8 **characterize** 15:6.
 9 **CHARLES** 92:5, 92:6, 92:7, 94:9, 94:13.
 10 **cheap** 114:25.
 11 **cheat** 51:22.
 12 **check** 124:6, 129:9.
 13 **checkerboard** 170:9, 170:10.
 14 **checking** 43:8, 122:15.
 15 **cheese** 179:12.
 16 **chemical** 141:3, 144:4, 144:11.
 17 **chemistry** 25:24, 26:2, 26:4.
 18 **chemotherapy** 75:15.
 19 **Chernobyl** 103:17.
 20 **Cheyenne** 12:2, 12:5, 56:19, 56:20, 58:3, 60:13, 68:13,
 21 68:16, 87:7, 92:9, 92:10, 141:20, 155:4, 155:5,
 22 156:12, 174:22, 174:23, 176:3, 190:18, 190:20,
 23 190:23.
 24 **Chief** 39:24, 51:18, 51:25, 52:3, 52:17, 53:2, 54:16,
 25 54:25, 66:7, 150:4, 150:5, 151:20, 152:2, 152:8.
chiefs 52:5, 54:9, 151:18.
child 65:12, 105:2, 157:3.
Children 32:16, 51:21, 54:14, 54:20, 54:22, 60:8,
 61:21, 66:9, 74:6, 75:19, 76:5, 76:7, 79:18, 104:10,
 105:16, 108:5, 110:2, 147:8, 151:13, 151:23, 152:4,
 153:5, 153:21, 155:14, 157:17, 157:21, 180:22,
 181:15, 183:6, 183:7, 183:8, 184:10, 185:12.
Chilson 14:2, 14:3, 22:16.
Chinese 33:21.
chloride 26:15.
choice 75:20.
choices 104:18.
choose 19:4, 19:17, 78:2.
chose 78:1, 150:8.
chosen 106:1, 190:7.
Christ 88:15.
Christianity 82:6, 82:8.
Christians 88:11, 88:12.
chronic 159:2, 159:18, 160:4, 162:3.
Church 1:10, 66:25, 67:2, 67:3.
circle 163:22, 164:4.
citizen 89:15, 131:24, 185:23.
citizens 65:18, 184:21.
City 3:25, 29:5, 33:6, 49:11, 49:25, 132:16, 139:9,
 140:18, 145:18, 172:16, 197:30.

1 **civilized** 89:14.
claim 69:9, 183:7.
 2 **Clarence** 61:14, 61:16.
clarifying 5:13, 118:16.
 3 **Class** 3:10, 3:12, 3:18, 8:16, 8:18, 8:19, 9:3, 9:6,
 9:13, 9:16, 11:8, 11:25, 17:8, 17:9, 17:13, 20:22,
 4 20:25, 22:1, 24:24, 25:2, 26:7, 26:19, 89:3, 96:22,
 100:24, 117:11, 117:13, 117:18, 124:24.
 5 **classes** 8:14, 8:15.
classifies 8:13.
 6 **Clean** 19:23, 47:16, 47:17, 47:18, 48:8, 59:7, 59:10,
 63:21, 69:11, 114:15, 126:21, 127:15, 128:12, 135:8,
 7 135:9, 137:17, 141:15, 146:19, 174:15, 178:11,
 178:13, 183:18, 183:19, 184:11.
 8 **cleaned** 47:1, 47:18, 73:23, 128:5, 134:24, 135:5,
 135:25, 137:23.
 9 **cleaning** 103:6, 103:15.
cleans 127:18.
 10 **cleanup** 20:3, 126:13.
clear 39:4, 122:12, 150:17.
 11 **cleared** 155:24.
clearly 47:12, 96:17.
 12 **clever** 37:19.
clicks 93:13, 93:14.
 13 **client** 37:3.
cliff 172:16.
 14 **climatic** 142:17.
Clinic 75:14.
 15 **clomp** 181:10.
Close 22:22, 28:18, 36:7, 36:18, 108:7, 113:12,
 16 129:24, 165:14, 169:13.
closed 196:13.
 17 **closes** 196:8.
closing 36:18.
 18 **closure** 42:9.
clothes 13:14.
 19 **Cloud** 48:24, 48:25, 54:2, 54:3, 54:7, 55:6.
co-exist 158:15.
 20 **co-opted** 107:25.
CO2 14:20, 35:11, 35:19.
 21 **coal** 51:2.
coast 135:2.
 22 **coaster** 188:6.
Cobalt 90:9.
 23 **code** 90:5.
codes 11:21, 90:12.
 24 **coffins** 90:15.
cold 154:15.
 25 **collapsed** 23:15.
collect 15:10, 70:2, 169:17.

1 **collected** 119:2.
collection 160:15.
 2 **collective** 169:14.
collects 6:9.
 3 **college** 30:25, 31:3, 31:5, 41:9, 121:23, 124:4, 130:6,
 180:17, 183:15.
 4 **colonized** 76:17.
color 11:21.
 5 **color-coded** 13:25.
Colorado 2:6, 96:16, 116:22.
 6 **Columbus** 146:25, 166:4, 166:6.
Comes 14:18, 39:7, 69:5, 72:23, 79:15, 82:22, 86:22,
 7 136:3, 138:10, 146:11, 150:1, 152:19, 169:16,
 188:23.
 8 **comfort** 32:14.
comfortable 95:21, 139:16.
 9 **Coming** 2:3, 7:14, 61:2, 61:4, 61:11, 68:20, 68:21,
 74:11, 77:14, 90:19, 109:16, 125:10, 135:2, 135:3,
 10 135:10, 137:7, 138:22, 139:22, 146:10, 157:8,
 182:15, 184:18, 194:2, 194:24, 194:25, 195:22.
 11 **command** 170:25, 190:3.
commence 133:3.
 12 **commend** 37:15.
Comment 3:21, 7:21, 9:21, 10:13, 27:7, 27:10, 58:23,
 13 101:19, 101:20, 119:16, 140:25, 187:24, 189:2,
 195:23, 196:8.
 14 **commented** 127:12.
commenting 44:3.
 15 **Comments** 2:10, 3:19, 5:11, 5:17, 5:21, 5:22, 6:2,
 6:11, 6:16, 6:21, 6:25, 7:2, 7:8, 7:18, 27:18, 38:4,
 16 60:18, 63:12, 95:18, 117:19, 118:20, 119:4, 119:11,
 119:16, 119:19, 119:24, 134:13, 138:20, 153:24,
 17 182:5, 188:1, 188:3, 189:6, 196:1, 196:9, 196:12.
Commission 10:20, 18:19, 33:2, 33:3, 33:22, 38:25,
 18 57:16, 100:23, 197:33.
commitment 152:13.
 19 **commodity** 184:23.
Common 55:15, 148:4, 148:5, 148:17, 149:1, 149:3.
 20 **communication** 189:23.
Communications 2:25.
 21 **communities** 60:6, 64:8, 64:10, 105:10, 182:17.
Community 3:2, 3:3, 57:25, 94:17, 120:24, 131:15,
 22 131:17, 131:20, 132:4, 139:4, 173:20, 173:22, 174:8,
 176:16, 177:20, 181:1, 181:3, 186:7, 187:6, 187:9,
 23 192:6, 192:10.
companies 28:16, 34:14, 50:23, 129:8, 135:11.
 24 **company** 33:21, 36:15, 47:13, 133:4, 136:3.
comparison 25:23.
 25 **compelled** 165:11.
complained 188:16.

1 **complete** 4:24, 10:12, 19:8, 118:6.
completed 18:16, 18:18.
 2 **completely** 155:9, 175:23.
compliance 19:9, 20:15.
 3 **complied** 40:3.
composes 23:8.
 4 **Compromise** 106:7, 149:25, 150:1.
con 148:6.
 5 **concentrated** 138:3.
concentrating 160:18.
 6 **Concentration** 25:18, 159:20, 160:11, 162:21, 179:7.
concentrations 20:8, 20:10.
 7 **conception** 105:5.
concern 62:2, 94:23, 135:21, 136:16, 175:18, 184:22,
 8 188:16.
concerned 46:15.
 9 **concerns** 30:11, 31:19, 38:8, 140:25, 142:4.
conclude 99:12, 196:6.
 10 **concluded** 40:9, 99:13, 196:14.
Concluding 144:1.
 11 **conclusion** 132:25.
condition 137:25.
 12 **conditions** 142:18.
conducting 83:24, 141:16.
 13 **cone** 15:21.
Confederate 168:8.
 14 **confined** 172:9.
confinement 22:10.
 15 **confining** 16:8, 18:6, 18:11, 18:15, 21:3, 22:8, 22:14,
 25:1, 25:19, 25:20, 26:1, 26:3.
 16 **confirmed** 184:1.
Congress 167:11, 167:13.
 17 **Congressional** 166:12, 167:4.
connect 45:19.
 18 **connected** 44:20, 45:14, 45:20, 66:15, 72:18, 72:22,
 138:5, 140:23.
 19 **connection** 3:17, 9:13, 30:20, 45:11, 46:5, 65:10,
 66:2, 96:22, 105:2, 105:8, 105:18, 117:17, 143:3,
 20 195:15.
connections 67:18, 72:20.
 21 **connects** 191:2.
cons 148:4.
 22 **conscience** 156:23, 157:13.
consciousness 105:21.
 23 **consent** 60:24.
consequence 163:12.
 24 **Consider** 5:20, 38:14, 38:20, 81:10, 119:3, 120:10,
 137:11, 137:12, 140:23.
 25 **consideration** 10:2, 79:2, 98:1, 102:7.
considered 6:2, 6:10, 39:17, 67:21, 99:7, 118:20,

1 134:23, 183:12.
 considering 31:14.
 2 **consistently** 100:14, 105:25.
 consists 12:14.
 3 **consolidated** 187:7.
 conspired 52:2.
 4 **constituent** 20:7.
 constraints 43:3.
 5 **construction** 20:24, 37:18, 42:6.
 consult 170:17.
 6 **consultation** 10:2, 10:4, 10:8, 10:11, 73:25.
 consulted 73:3, 145:21.
 7 **consumption** 8:10, 98:13, 99:8.
 contain 17:3, 24:13.
 8 **contained** 15:12, 16:2, 16:9.
 containers 144:4.
 9 **containment** 16:13, 16:17.
 contains 8:7, 8:10.
 10 **contaminant** 19:6.
 contaminants 19:12, 19:16, 19:19, 19:20, 20:4, 20:10,
 11 20:18, 22:11.
 contaminate 69:9, 100:3, 120:19.
 12 **contaminated** 63:21, 63:22, 63:23, 87:10, 109:9,
 124:18, 143:23, 158:2.
 13 **contaminates** 125:2, 128:17, 135:22, 156:10.
 contaminating 75:8, 91:24, 155:25.
 14 **Contamination** 18:14, 19:24, 20:1, 46:23, 97:5, 100:15,
 100:17, 137:23, 144:16, 144:20.
 15 **contents** 143:25, 144:8.
 contest 121:12.
 16 **context** 7:18.
 continue 10:8, 36:17, 38:19, 50:24, 54:19, 54:20,
 17 68:23, 72:13, 97:4, 98:1, 108:10, 109:11, 164:3,
 164:17, 194:20.
 18 **continued** 99:5, 106:22, 127:24.
 continues 20:1, 73:11, 75:7, 94:17, 98:18.
 19 **continuing** 53:14, 160:9.
 continuous 101:6.
 20 **Control** 1:3, 3:5, 7:23, 16:20, 108:15, 108:16, 117:7,
 150:23.
 21 **controller** 140:17.
 controlling 142:14.
 22 **controls** 142:25.
 convince 123:23.
 23 **convoluted** 97:24.
 COOL 146:6.
 24 **cooperatively** 98:5.
 coordinator 81:13.
 25 **COPD** 146:14.
 copies 17:23, 119:7.

1 **copper** 182:14.
 2 **copy** 6:13, 6:17, 33:11, 119:6, 119:8, 132:18, 132:22,
 3 166:10.
 4 **corner** 85:7, 192:14.
 5 **Corolla** 96:1.
 6 **corporate** 108:1, 108:2, 108:11, 131:24.
 7 **corporation** 56:25, 57:10, 57:13, 109:2, 109:3, 109:15,
 8 120:22.
 9 **Corporations** 50:24, 57:6, 60:4, 60:6, 110:10, 110:23,
 10 120:23, 125:10, 136:9, 182:25.
 11 **Corps** 141:14, 143:17, 144:14, 144:18, 144:22.
 12 **corpse** 108:11.
 13 **corrected** 99:19.
 14 **cosmetic** 33:4.
 15 **cost** 33:18, 63:19.
 16 **Council** 74:22, 132:16.
 17 **counsel** 197:18.
 18 **Count** 64:3.
 19 **Counties** 11:17, 44:10.
 20 **counting** 93:24.
 21 **countless** 33:14, 188:17, 188:20.
 22 **countries** 92:13, 136:19, 150:25.
 23 **Country** 31:24, 40:19, 53:12, 65:18, 73:11, 93:25,
 24 94:2, 94:6, 146:6, 146:9, 156:8, 156:19, 173:21,
 25 174:7, 185:10.
COUNTY 39:21, 58:1, 63:10, 64:4, 76:22, 183:23, 186:3,
 197:7.
couple 10:4, 82:6, 84:19, 130:13, 136:7, 145:17,
 146:4, 152:22, 173:7, 174:19, 177:13.
courage 157:18, 157:20.
course 39:9, 81:24, 178:22.
courses 86:24, 86:25, 87:2.
Court 6:3, 6:19, 28:4, 28:8, 118:21, 126:19, 126:20,
 167:9, 168:2, 168:3, 184:15.
courtroom 171:8.
Courts 167:19, 167:22.
cousins 147:23.
cover 63:19, 90:25.
covered 43:1, 85:4, 178:9.
covering 32:17.
covers 24:7.
cow 146:11.
cowboy 107:14.
cows 70:4, 70:5, 85:22.
Cox 36:2, 36:3, 37:9, 101:13, 101:14, 163:17, 163:18,
 165:5.
Craven 177:11.
Crawford 56:21, 56:22, 63:11, 64:6, 165:17, 186:3,
 186:12, 186:13, 186:22, 186:24.
crazy 190:12.

1 **create** 98:20, 177:24.
 created 45:23, 77:19, 104:20, 115:11, 164:15.
 2 **creates** 35:19.
 creating 160:25.
 3 **creation** 82:1, 82:2.
 creature 190:11.
 4 **creatures** 75:9, 75:21.
 Creek 12:5, 12:6, 57:18, 60:13, 134:19, 141:13,
 5 141:19, 186:20.
 creeks 67:23.
 6 **criminal** 182:11.
 criminalized 187:11.
 7 **criteria** 8:24, 97:16.
 crops 168:6.
 8 **cross** 20:4, 20:10.
 cross-section 13:24, 22:4.
 9 **Crow** 57:2, 57:4, 69:10, 79:6, 127:20, 127:21, 129:1,
 155:22, 165:16, 168:23, 169:1, 170:15, 171:2, 186:4,
 10 186:25.
 crowd 153:24.
 11 **crucial** 15:9.
 cultural 73:4, 73:23.
 12 **culture** 33:1, 33:15.
 Cumulative 9:23, 48:1.
 13 **curiosity** 105:22.
 Curran 27:24, 27:25, 28:1, 28:5, 28:6, 28:10, 29:25.
 14 **currency** 105:5.
 current 97:13, 97:15, 98:2, 98:6, 98:8, 98:20, 100:4,
 15 100:9, 100:19.
 currently 8:9, 32:9, 97:10, 98:9, 98:12, 98:14, 98:16,
 16 99:15, 110:3, 134:11, 134:20, 134:22, 140:19.
 Custer 11:17, 44:10, 81:20, 140:18.
 17 **cut** 52:15, 69:2, 75:16, 111:8, 114:21, 115:23, 169:5,
 178:17, 191:22.
 18 **CZA** 99:12.
 19 .
 .
 20 < D >.
 dad 30:21, 68:15, 68:18, 84:25, 85:13, 129:20, 129:24,
 130:1, 130:23, 191:12, 191:24.
 21 **dads** 67:22.
 daily 51:3.
 22 **DAKOTA** 3:9, 10:21, 30:8, 31:1, 32:9, 33:7, 35:8, 41:6,
 42:11, 65:7, 69:19, 69:21, 70:9, 74:20, 74:23,
 23 74:24, 80:21, 81:18, 89:21, 90:14, 90:21, 96:20,
 99:6, 117:10, 124:5, 127:3, 131:15, 132:9, 134:12,
 24 140:22, 141:22, 144:17, 144:21, 168:21, 179:6,
 182:16, 183:22, 185:7, 189:13, 197:5.
 25 **Dakota-wyoming** 11:15.
 Dakotan 185:14.

1 **dam** 85:19, 85:21.
damn 158:6.
 2 **dance** 52:12.
danced 52:25, 160:6.
 3 **danger** 13:21.
dangerous 35:16, 69:20, 73:13, 178:9, 178:10.
 4 **dangers** 55:19.
DAP 183:22.
 5 **dashed** 12:23.
data 15:10, 35:4, 35:6, 159:7.
 6 **date** 34:18, 100:16.
Dated 34:5, 197:24.
 7 **daughter** 13:16, 70:19, 79:20, 79:22.
Davidson 86:8.
 8 **Day** 33:12, 33:16, 35:3, 38:7, 38:19, 39:11, 52:5,
 52:7, 55:13, 56:9, 56:21, 131:13, 149:7, 150:5,
 9 157:13, 182:15, 195:25, 197:24.
days 27:17, 30:12, 35:12, 38:17, 39:12, 49:22, 72:10,
 10 74:11, 128:3, 145:17, 178:22, 195:25.
dead 174:1.
 11 **Deadwood** 81:3.
deal 53:20, 92:21, 120:17, 127:14, 148:7.
 12 **dealing** 55:18, 141:24, 161:2, 161:4.
dealt 92:22.
 13 **dear** 28:13.
death 54:16, 75:24, 91:9.
 14 **debating** 169:3.
DEBRA 56:11, 56:12, 56:15, 60:19.
 15 **debt** 31:3.
decades 34:12.
 16 **decay** 13:14, 13:21, 26:10, 103:1.
decays 13:16, 103:1, 103:2.
 17 **Deceptive** 63:14.
decide 110:18.
 18 **decided** 44:18.
decision 7:9, 50:15, 95:4, 95:8, 96:18, 106:13,
 19 119:25, 157:6, 189:8.
decisions 10:11, 31:24, 78:1, 79:16.
 20 **deck** 58:17.
Declaration 60:21.
 21 **declare** 125:14.
declares 97:13.
 22 **dedicated** 97:2.
deep 3:13, 8:19, 9:7, 11:25, 20:22, 25:2, 58:8, 58:15,
 23 59:22, 63:17, 85:9, 85:24, 86:2, 86:12, 86:21,
 117:14, 141:8.
 24 **defend** 52:4, 168:15, 177:7, 177:11, 185:21.
defended 177:9.
 25 **defers** 166:20.
defined 8:5.

1 **deformed** 68:6, 179:20, 191:23, 193:16.
Degradation 167:17, 167:24.
 2 **degree** 31:2, 53:9, 102:19, 182:12.
degrees 132:6.
 3 **delivery** 64:3.
demand 100:5, 149:25.
 4 **demonstrate** 16:13, 16:25, 20:4, 21:10, 33:15.
demonstrates 15:17, 16:1.
 5 **denial** 33:2, 33:15.
denounce 100:4.
 6 **DENR** 11:6, 41:12, 127:3.
Denver 2:6, 6:13, 116:22, 119:6.
 7 **deny** 40:18, 40:21, 156:6.
denying 156:7.
 8 **Department** 10:22, 42:2.
depend 133:25.
 9 **depending** 174:2.
depleting 105:25.
 10 **Depo** 144:23.
deposit 8:18, 9:19, 11:23, 14:19, 18:11.
 11 **deposited** 133:20.
deposits 11:22, 13:8, 14:1, 14:14.
 12 **Depot** 141:4, 143:15, 143:19, 144:5, 144:10, 144:17,
 144:21.
 13 **depression** 15:21.
DEQ 41:13.
 14 **deride** 110:11.
derived 105:22, 106:12.
 15 **descendants** 82:20.
descriptions 63:15.
 16 **Deseret** 32:25.
design 39:24.
 17 **despite** 40:17.
destroy 104:18, 111:18, 111:24, 148:11, 148:14,
 18 148:24, 175:17.
destroyed 68:8, 194:3.
 19 **destroying** 68:9.
destroys 172:20.
 20 **destruction** 53:15, 54:4, 144:3.
detach 170:19.
 21 **detached** 171:23.
detaching 68:25.
 22 **detail** 4:4, 132:2.
detect 19:19.
 23 **detected** 19:20.
detection 20:17, 128:24, 129:2.
 24 **detector** 93:13, 93:14.
deteriorated 53:8.
 25 **determination** 5:23, 7:5, 119:21.
determine 126:13.

1 **determined** 40:16, 99:24.
determining 196:4.
 2 **devastating** 53:9.
devastation 122:19.
 3 **developed** 18:12, 162:2.
developing 20:14, 159:24.
 4 **development** 60:25, 142:22.
devolved 96:25.
 5 **Dewey** 11:17, 11:18, 11:20, 120:7, 120:8, 130:12,
 139:2, 141:17.
 6 **Dewey-burdock** 1:2, 10:19, 11:12, 15:18, 24:5, 24:9,
 30:15, 31:6, 31:10, 72:13, 96:18, 125:20, 126:9,
 7 130:11, 131:16, 131:19, 132:17, 132:23, 133:1,
 133:13, 133:19, 139:6, 139:7, 140:21, 141:1, 143:14,
 8 143:21, 144:7.
diagnosed 186:23.
 9 **diagram** 14:11.
dials 123:11.
 10 **Diamond** 126:9.
dichotomy 107:20.
 11 **die** 54:19, 71:1, 90:19, 94:3, 94:7, 109:8, 124:14,
 157:14.
 12 **died** 32:11, 33:10, 49:16, 52:7, 70:18, 70:24, 130:13,
 163:6, 186:23.
 13 **dies** 113:13.
difference 33:5, 162:8.
 14 **different** 12:22, 25:11, 25:14, 26:1, 65:13, 72:20,
 86:20, 104:19, 114:1, 115:9, 121:9, 137:1, 163:23,
 15 185:19, 185:20.
difficult 37:21.
 16 **difficulties** 146:14.
dig 71:4, 84:25, 87:9, 123:21.
 17 **digging** 85:22, 179:11.
diminished 142:19.
 18 **Dine** 72:4.
dinosaurs 59:15.
 19 **dioxide** 12:16.
direct 30:14, 30:20, 31:11, 31:15, 65:10, 79:5, 79:6,
 20 190:14, 190:25.
direction 19:3, 151:4, 151:5, 152:14.
 21 **directions** 153:5.
directly 7:1, 29:16, 42:19, 141:18, 143:15.
 22 **dirt** 84:18, 175:13, 193:21.
discerning 105:23.
 23 **discharge** 11:6, 63:25.
discipline 37:16.
 24 **disclaimer** 95:24.
disclosed 100:22.
 25 **discombobulate** 67:13.
disconnected 45:15, 66:24, 127:9.

1 **discovering** 77:21.
discriminate 146:17.
 2 **discussion** 5:16, 195:12.
diseases 159:24.
 3 **disgrace** 53:24.
disposal 3:13, 8:21, 58:8, 58:10, 58:15, 59:23, 76:2,
 4 100:25, 101:1, 101:2, 115:11, 117:14.
dispose 11:10.
 5 **disposed** 11:11, 154:7.
disposing 162:17.
 6 **disrespect** 112:13, 184:20, 184:21.
dissolution 22:22, 23:21, 23:24, 24:1, 24:6.
 7 **dissolved** 8:11, 21:14, 21:21, 23:7, 23:11, 23:14.
District 168:2.
 8 **disturbance** 62:17.
divots 69:25, 70:1, 70:3.
 9 **docket** 6:7, 6:9, 6:11, 6:15, 6:24, 7:1, 119:1, 119:2,
 119:4, 119:14.
 10 **doctors** 49:24, 50:9, 50:19, 91:10, 91:18, 124:16.
Doctrine 166:14, 167:11, 168:15.
 11 **document** 9:22, 9:24, 10:1, 160:3.
documentation 6:22, 119:12.
 12 **documented** 187:1.
documenting 33:1.
 13 **documents** 9:20, 10:14, 27:8, 27:10, 159:14.
dog 96:1.
 14 **dogs** 85:21, 134:24.
doing 37:25, 46:12, 71:24, 71:25, 92:12, 92:15, 96:7,
 15 108:20, 117:4, 136:20, 136:21, 147:24, 149:4,
 150:24, 153:4, 160:19, 164:22, 165:2, 171:20, 173:6,
 16 177:16, 185:12.
dollar 87:21, 88:19, 97:2.
 17 **dollars** 33:19.
Dome 47:6.
 18 **DON** 30:2, 30:5, 32:8, 165:24, 165:25, 188:5.
done 31:9, 31:11, 43:20, 54:21, 62:15, 62:16, 92:16,
 19 94:22, 101:10, 125:24, 128:6, 128:8, 135:16, 135:18,
 135:19, 151:1, 152:21, 154:2, 188:4.
 20 **door** 126:23.
doors 65:15.
 21 **Dorothy** 178:25, 179:2, 179:4, 179:5.
dose 159:20, 160:5, 160:22, 161:11, 161:12, 163:13.
 22 **dots** 11:24, 24:9.
doubt 30:12, 44:5, 64:5.
 23 **Douglas** 2:14, 2:15, 2:18, 2:21.
down 12:4, 22:11, 23:2, 24:16, 29:6, 29:12, 36:18,
 24 36:21, 47:21, 61:19, 61:20, 69:18, 70:7, 70:14,
 71:10, 72:23, 74:8, 77:22, 80:16, 84:17, 86:11,
 25 86:21, 87:3, 87:9, 87:17, 108:22, 113:13, 114:21,
 115:3, 123:18, 127:20, 129:1, 140:15, 143:6, 165:16,

1 171:14, 172:13, 176:11, 176:15, 178:4, 181:3,
 2 182:23, 182:24, 188:7, 191:24, 192:1, 192:5, 192:11,
 3 194:4, 195:5.
 4 **Downgradient** 19:2, 24:1.
 5 **downstream** 64:10, 72:22, 73:18, 156:14.
 6 **downward** 143:7.
 7 **DRAFT** 1:3, 3:4, 3:10, 3:18, 8:25, 9:2, 9:21, 10:1,
 8 10:10, 11:5, 18:17, 26:23, 27:21, 117:6, 117:11,
 9 117:17.
 10 **drained** 62:19, 86:11.
 11 **dramatics** 176:19.
 12 **drastically** 34:24.
 13 **drawing** 15:25, 98:10.
 14 **dream** 86:15.
 15 **dreams** 152:10.
 16 **dressed** 165:11.
 17 **drifted** 85:19.
 18 **drill** 17:17, 17:24, 18:2, 25:1, 25:12.
 19 **drilled** 21:20, 24:11.
 20 **drilling** 24:13, 99:23, 99:24, 143:12, 154:2.
 21 **drink** 13:6, 32:12, 60:15, 67:23, 70:4, 70:5, 85:25,
 22 87:21, 136:22, 138:7, 138:8, 148:15, 180:20,
 23 190:17.
 24 **drinkable** 75:23, 78:21, 174:16.
 25 **Drinking** 7:25, 8:2, 8:4, 8:9, 8:20, 13:11, 17:11,
 19:11, 19:14, 21:12, 21:23, 23:18, 23:25, 24:4,
 34:7, 34:9, 34:15, 50:16, 96:21, 97:9, 97:11, 97:12,
 97:15, 98:3, 98:25, 99:16, 100:10, 100:19, 100:20,
 141:10, 142:4, 154:9, 154:11, 156:14, 184:10,
 187:3.
drinking-water 25:22.
driving 113:5.
drop 74:25.
droughts 34:23.
drove 95:25.
drug 53:11.
drums 150:13.
dry 62:20, 70:2, 71:6, 85:20, 85:21.
ducks 85:5.
dug 70:1, 84:16, 85:7, 86:2, 86:9.
dugouts 85:22.
Duke 35:10.
dump 136:5, 136:7, 137:14, 154:1, 154:6.
dumped 71:10, 87:14, 154:4, 154:5.
dumps 125:16.
duration 84:16.
During 5:17, 5:21, 5:25, 15:20, 16:5, 44:3, 52:12,
 53:6, 79:5, 83:18, 118:18, 173:8, 186:11, 186:24.
dust 32:17, 176:8.
duty 67:19, 191:19, 192:19, 193:18, 193:19.

1 **dying** 91:10, 94:5, 158:2, 174:7.
 2 **dynamic** 142:23.
 3 .
 4 .
 5 < E >.
 6 **ear** 78:20.
 7 **EARL** 145:13, 145:15, 147:15, 147:17.
 8 **earlier** 36:23, 50:6, 62:24.
 9 **early** 16:15, 41:20, 41:21, 42:25, 69:23, 186:12.
 10 **earn** 132:6.
 11 **Earth** 75:8, 77:15, 104:10, 104:19, 104:24, 105:7,
 12 105:9, 105:19, 105:22, 111:24, 115:7, 115:11,
 13 123:17, 123:25, 156:1, 163:21, 191:9, 195:18.
 14 **easiest** 37:23.
 15 **easily** 105:13, 164:25.
 16 **east** 46:16, 65:7, 84:23, 86:9, 92:7, 135:2, 135:17,
 17 136:25.
 18 **eastern** 70:9.
 19 **eastward** 141:21.
 20 **easy** 81:6, 165:2, 172:7.
 21 **eat** 92:10, 146:8, 146:11, 148:16, 158:12, 164:9,
 22 174:24, 174:25, 176:3.
 23 **eating** 179:23, 195:4.
 24 **economic** 44:9, 132:3, 139:12.
 25 **economist** 39:23.
edge 70:12, 83:11.
Edgemont 1:12, 3:8, 12:4, 30:9, 32:9, 38:5, 38:6,
 49:11, 58:1, 60:11, 80:1, 92:7, 96:20, 102:18,
 117:10, 120:5, 122:5, 124:12, 130:14, 130:18,
 131:15, 131:25, 139:5, 140:22, 142:3, 142:8, 165:13,
 180:9.
educate 184:9.
educated 120:17, 121:20, 150:22, 151:10.
education 31:1, 41:7, 121:10, 151:11.
educational 30:13.
educator 182:9, 182:12, 183:13, 184:8.
EDWARD 88:1, 88:2, 88:5, 91:16.
effect 51:3, 150:25.
Effects 9:23, 9:24, 106:5, 136:15, 160:4, 161:19.
effort 100:4.
efforts 97:25.
eight 10:6, 103:17, 130:7.
Eileen 134:9, 134:10.
either 7:7, 24:10, 35:5, 106:1, 119:23, 138:8, 156:6,
 156:7, 192:2.
elder 166:2.
elected 132:14.
element 26:12, 160:21, 167:20.
elements 13:17, 67:9, 160:12, 169:25.
eleven 61:22.

1 **eleven-page** 32:19.
eliminate 97:22, 98:8.
 2 **eliminating** 97:18.
elites 187:16.
 3 **eloquence** 96:10.
elsewhere 132:7.
 4 **Elyana** 2:4, 116:20.
emblem 89:2, 89:3.
 5 **emergency** 63:20.
emit 13:17.
 6 **emotion** 28:20, 32:1, 105:1, 107:21, 134:5.
emotional 31:19, 46:14, 55:13, 71:14, 71:15, 110:11,
 7 110:13, 165:20, 176:19, 176:20.
emotions 43:13.
 8 **emphasize** 26:22, 132:25.
employee 197:19.
 9 **emptiness** 105:6.
encased 187:9.
 10 **encourage** 43:15, 44:7, 119:18.
encroach 40:13, 40:17, 40:22, 57:24, 60:5.
 11 **encroaching** 40:1, 60:10, 193:24.
end 5:7, 48:4, 48:19, 90:7, 150:6, 164:14, 174:13,
 12 194:22.
endangers 64:9.
 13 **endometrial** 75:11.
endured 169:10.
 14 **energies** 114:20, 115:10.
Energy 33:2, 34:14, 47:20, 71:22, 158:15, 158:16,
 15 177:24.
enforcement 42:12.
 16 **engage** 5:16.
engineer 30:7, 41:16.
 17 **engineering** 31:2, 102:19, 124:4, 132:6, 165:20.
Engineers 33:20, 120:16, 121:19, 124:3, 141:14,
 18 143:17, 144:14, 144:18, 144:22, 163:10.
Englebert 138:25, 139:1, 139:2, 140:10.
 19 **Englewood** 96:15.
English 51:23, 109:19, 110:2.
 20 **enjoy** 52:12, 115:12, 120:25.
enjoyed 52:24.
 21 **enough** 22:24, 48:19, 86:16, 109:11, 133:5, 161:25.
enslave 110:18.
 22 **enslaved** 108:20.
ensure 2:9, 73:2, 94:21.
 23 **entered** 6:23.
enters 52:9.
 24 **entertaining** 28:15, 38:3.
entire 50:17, 52:19, 100:3, 138:20, 141:23, 184:7.
 25 **entirety** 81:1.
entities 67:9.

1 **entity** 106:7.
 2 **Environment** 10:22, 38:13, 79:11, 79:15, 130:24,
 3 143:25, 172:19, 178:15.
 4 **Environmental** 2:5, 7:9, 9:22, 39:2, 39:5, 39:14, 40:5,
 5 40:10, 40:13, 42:13, 50:19, 56:14, 72:7, 74:4, 97:4,
 6 100:6, 116:21, 119:25, 125:8, 140:22, 142:10, 158:5,
 7 170:20, 178:14, 182:18.
 8 **environmentalist** 184:25.
 9 **environmentalists** 39:20.
 10 **EPA** 2:9, 2:17, 3:4, 3:16, 6:9, 6:13, 9:12, 9:20, 15:3,
 11 21:24, 34:9, 43:15, 79:10, 79:12, 88:5, 96:25, 97:8,
 12 97:13, 97:25, 98:4, 98:9, 98:15, 98:21, 99:9, 99:12,
 13 99:13, 100:5, 100:13, 100:22, 108:3, 117:6, 117:16,
 14 119:2, 119:6, 126:10, 128:18, 129:8, 135:4, 141:9,
 15 159:14, 160:3, 166:10, 167:2, 168:10, 173:6, 178:5,
 16 178:12.
 17 **ephemeral** 141:12.
 18 **Epsom** 87:6.
 19 **equal** 161:15, 161:16, 161:18, 190:4.
 20 **equally** 151:15.
 21 **equipment** 63:21.
 22 **equipping** 90:15.
 23 **errors** 92:21.
 24 **escaped** 56:20.
 25 **especially** 38:14.
essential 77:6.
establish 20:7.
established 38:25.
establishes 20:17.
estimated 32:20.
et 42:16, 42:20.
Europeanism 183:10.
evacuate 64:4.
evacuated 184:4, 184:7.
Evans 36:13.
evaporation 64:1, 68:11.
evening 116:18, 116:24, 117:2, 133:11.
events 106:3.
eventually 13:15, 26:10, 85:12, 86:4, 137:14, 164:4.
everybody 2:9, 28:9, 56:9, 72:23, 77:12, 88:4, 104:7,
 111:22, 114:25, 149:5, 153:8, 158:9, 168:22, 175:6,
 176:14.
everyday 59:1, 134:1.
Everyone 2:2, 4:19, 5:1, 5:7, 7:13, 27:9, 29:21,
 33:24, 95:20, 101:17, 102:3, 102:4, 106:20, 116:18,
 118:11, 121:2, 130:16, 137:4, 138:23, 146:2, 161:20,
 179:4.
Everything 43:9, 57:23, 67:7, 74:7, 79:3, 81:20,
 113:14, 114:1, 115:2, 124:8, 126:24, 135:23, 136:16,
 137:10, 147:2, 154:22, 163:11, 164:24, 165:18,

1 185:9, 189:11.
 everywhere 49:23, 83:5, 83:6, 83:7, 93:15, 179:12.
 2 **evidence** 17:25, 79:5, 79:6, 97:24, 155:22, 168:24,
 181:22, 184:5.
 3 **evidenced** 73:12.
 evidently 124:5.
 4 **exact** 137:25.
 exactly 49:17, 150:3, 190:10.
 5 **example** 45:10, 45:25, 142:3, 142:6.
 examples 33:14, 93:7.
 6 **except** 44:20, 139:12, 141:13, 180:16.
 exception 121:22.
 7 **exceptions** 131:17.
 excursions 129:7.
 8 **Excuse** 3:6, 44:2, 53:15, 95:16, 95:17, 104:2, 143:16,
 179:18, 181:12.
 9 **exempt** 8:23, 9:14, 96:23, 97:8, 97:20, 128:11.
 exempted 129:7, 141:10.
 10 **EXEMPTION** 1:4, 3:17, 3:20, 5:23, 7:5, 9:13, 12:23,
 14:5, 14:6, 19:10, 19:13, 19:17, 20:5, 35:21, 96:18,
 11 97:14, 97:17, 97:23, 98:22, 99:15, 100:8, 117:17,
 117:20, 119:21, 125:1, 128:9.
 12 **exemptions** 34:10, 34:13, 64:14, 97:3.
 exerts 143:7.
 13 **exist** 106:6, 166:23.
 existence 139:19.
 14 **exists** 45:12, 151:11.
 Expect 16:11, 25:11, 25:14, 26:12, 110:15, 131:21,
 15 158:22.
 expectations 43:12.
 16 **expected** 26:9, 26:20.
 expecting 10:7, 104:19.
 17 **experience** 30:14, 62:1, 94:14, 111:16.
 experiences 92:18, 92:19.
 18 **experiment** 35:17, 35:18, 61:10.
 experiments 35:10.
 19 **expert** 111:14.
 experts 32:23, 58:24, 72:11, 141:6.
 20 **expired** 127:23.
 expires 197:33.
 21 **explain** 4:3, 4:6, 5:14, 7:17, 7:19, 12:21, 118:17.
 explained 35:5.
 22 **explaining** 10:1, 132:2, 174:12.
 explains 111:23.
 23 **exploration** 17:17.
 expose 170:8.
 24 **exposed** 68:17, 143:11, 158:13, 162:9.
 exposure 13:23, 159:18, 160:4, 160:13, 161:12, 162:4,
 25 163:13.
 expression 106:5.

1 **extensive** 45:24.
 2 **extent** 14:5, 55:19.
 3 **extra** 18:6, 18:13.
 4 **extract** 62:12.
 5 **extracted** 62:23.
 6 **extraction** 64:9.
 7 **extremely** 63:1.
 8 **eye** 88:21, 89:24.
 9 **eyes** 156:25.
 10 .
 11 .
 12 **< F >.**
 13 **F.** 96:15.
 14 **face** 179:20.
 15 **faces** 106:11, 107:1.
 16 **facility** 40:11.
 17 **facility.** 39:3, 39:6.
 18 **facing** 168:12.
 19 **fact** 42:4, 47:2, 54:11, 72:21, 93:22, 99:8, 100:8,
 20 148:25, 156:17, 183:22, 184:6, 186:5.
 21 **factor** 183:21.
 22 **facts** 31:25, 72:11, 77:18, 100:13, 155:16, 156:1,
 23 156:15, 156:16.
 24 **fade** 24:17.
 25 **fail** 106:7.
failed 53:22, 53:23.
failing 171:12.
fails 140:23.
failures 92:20, 171:7, 171:8.
fair 4:19, 111:12.
Fall 11:16, 14:4, 22:16, 44:10.
fallout 32:17, 35:1.
false 107:20.
familiar 56:22, 107:1, 112:7, 139:15.
families 88:24, 108:5, 133:24, 137:19, 191:6.
family 30:18, 52:18, 61:21, 62:5, 66:9, 86:5, 130:15,
 130:24, 132:13, 138:21, 139:3, 139:23, 156:25,
 180:13, 192:7.
fancy 124:15.
far 38:17, 42:22, 43:4, 43:11, 55:9, 59:22, 64:10,
 121:4, 140:3, 150:25, 185:23.
farmers 36:8.
farther 23:12.
fascist 74:10.
fast 55:24.
faster 35:7.
fat 60:4.
father 114:3.
father-in-law 70:23.
fault 18:1.

1 **faults** 143:3.
 2 **favor** 29:8, 29:10, 29:15, 29:17, 29:22, 50:11, 50:13,
 3 63:3, 121:21.
 4 **fear** 31:25.
 5 **fearful** 31:21.
 6 **fears** 183:25.
 7 **Feasibility** 144:24.
 8 **feathers** 89:10.
 9 **fed** 99:25.
 10 **Federal** 43:1, 126:17, 126:18, 166:18, 166:22, 166:23,
 11 167:2, 167:5, 167:7, 167:22, 170:24, 187:16.
 12 **feed** 164:13.
 13 **feel** 26:25, 31:15, 79:13, 79:14, 82:22, 95:20, 106:23,
 14 153:14, 154:16, 165:11, 173:9, 173:19, 173:21,
 15 174:7, 177:3, 177:19, 178:15, 181:1, 185:15, 194:13,
 16 194:24.
 17 **feels** 154:15.
 18 **feet** 12:24, 14:9, 35:3, 86:2, 134:25.
 19 **felt** 56:8, 180:21.
 20 **FEMA** 90:12, 90:14.
 21 **few** 28:25, 32:13, 42:10, 72:9, 73:16, 81:3, 86:8,
 22 93:9, 94:13, 122:23, 130:19, 131:17, 163:4.
 23 **fewer** 8:10.
 24 **field** 85:3.
 25 **fields** 64:2.
fifth 38:18, 120:9.
fight 49:18, 77:2, 78:1, 182:19.
fighting 76:21, 78:24, 163:5, 182:20, 182:21.
figure 11:13.
figured 48:3, 56:8.
figures 72:11.
filed 57:9.
fill 105:6, 164:1.
filled 4:13, 4:15, 49:14, 85:19, 86:19, 117:23, 154:9,
 163:23.
fills 125:21.
Final 5:22, 7:4, 10:10, 15:3, 19:9, 26:21, 40:23,
 47:14, 73:6, 119:20, 119:25, 144:18, 144:22, 189:2.
finalize 133:2.
finalized 140:1.
finally 20:3, 113:12, 162:12, 162:17.
finance 140:18.
financial 197:20.
find 5:3, 19:15, 43:20, 81:15, 82:17, 87:8, 115:3,
 118:8, 132:7, 153:3, 157:24, 158:15, 176:4.
finding 168:3.
fine 56:5, 131:3.
finest 156:4.
finish 5:11, 5:12, 54:18, 118:13, 126:6, 149:11,
 177:19.

1 **finished** 10:25.
finishing 118:15.
 2 **finite** 59:12.
fire 104:17.
 3 **fired** 91:18.
Fires 74:22.
 4 **First** 3:24, 7:22, 9:2, 27:24, 32:10, 33:2, 38:24,
 39:23, 41:8, 50:5, 57:9, 57:15, 59:4, 59:11, 73:10,
 5 80:9, 83:15, 85:8, 89:3, 90:6, 102:8, 111:16, 120:3,
 127:2, 155:8, 166:17, 167:9, 173:7.
 6 **firsthand** 31:16, 73:8, 83:15.
fish 92:9, 92:10, 138:11, 174:24, 175:1, 176:3.
 7 **five** 3:22, 4:20, 4:22, 5:9, 27:16, 90:16, 94:1, 94:7,
 101:9, 118:1, 118:4, 120:7, 127:22, 127:25, 128:2,
 8 187:25.
fix 114:15.
 9 **fixed** 114:23.
flat 83:10, 188:8.
 10 **flaws** 35:3.
flesh 49:13.
 11 **Flint** 103:14.
floods 192:6.
 12 **flow** 12:8, 15:18, 16:1, 19:3, 26:18, 60:13, 141:2,
 141:12, 141:21, 142:12, 142:15, 142:19, 143:1,
 13 143:2, 143:12, 143:18.
Flower 49:3.
 14 **flowing** 16:2, 17:2.
flows 23:2, 26:17, 60:14.
 15 **flu** 169:12.
fluid 12:17.
 16 **fluids** 3:15, 8:22, 9:8, 9:10, 11:8, 11:11, 15:12,
 16:9, 18:8, 26:9, 26:15, 101:3, 117:15.
 17 **flush** 64:8.
Flute 74:15, 74:16, 74:19, 76:10, 76:11, 76:12,
 18 76:14.
focusing 185:2.
 19 **folks** 2:12, 5:10, 29:14, 38:1, 44:3, 51:23, 64:22,
 82:13, 103:24, 116:24, 178:19, 182:4, 182:6.
 20 **follow** 100:5, 145:14.
followed 41:7, 52:23, 88:12.
 21 **following** 163:3.
food 68:3, 68:8, 77:7, 148:15, 158:12.
 22 **foolproof** 55:16.
foot 84:17.
 23 **forage** 105:24.
forbidden 115:15, 115:18, 115:24.
 24 **forbids** 34:8.
Force 54:22, 73:13, 83:21, 91:3.
 25 **forced** 66:5, 66:23, 190:21, 190:22.
forcing 73:14.

1 **foregoing** 197:14.
foremost 155:9, 155:11.
 2 **foresaw** 53:17.
forget 161:7.
 3 **forgive** 36:21, 105:22.
forgot 15:24, 65:1.
 4 **forgotten** 106:1.
form 54:8, 87:6, 160:19.
 5 **formal** 63:12, 116:23.
Formally 110:23.
 6 **formation** 22:5, 23:16.
former 131:14, 140:17, 140:18, 144:16, 144:20.
 7 **forms** 169:9, 185:1.
Fort 57:17.
 8 **forth** 50:10, 50:20.
fortunate 121:11.
 9 **forward** 33:16, 73:22, 132:3, 132:11, 140:4, 196:3,
 196:4.
 10 **fossil** 158:18.
fought 52:4.
 11 **found** 7:3, 10:14, 34:18, 49:15, 58:9, 80:20, 122:13,
 122:17, 179:19, 179:23.
 12 **fountain** 143:9.
four 11:19, 38:17, 49:22, 58:9, 61:21, 75:17, 118:2,
 13 174:25, 178:22.
four-legged 49:19, 50:1.
 14 **fracture** 18:1.
fractures 45:21, 45:22.
 15 **free** 60:23, 144:2.
freedom 52:19, 66:25, 170:1, 170:3, 194:18.
 16 **freeze** 36:22.
French 74:25.
 17 **fresh** 35:13, 49:13, 138:9.
Friday 27:12.
 18 **friend** 68:4, 124:11, 134:21.
friends 50:1, 134:20.
 19 **front** 22:22, 23:24, 24:1, 49:11, 171:16.
fruit 68:6, 115:15, 115:17, 115:18, 115:24.
 20 **fruits** 67:7, 68:2.
fuel 39:9, 39:14, 39:17.
 21 **fuels** 158:18.
Fukushima 58:7, 58:20, 75:7, 103:16.
 22 **fulfill** 167:14.
fulfilled 105:1.
 23 **fulfilling** 193:19, 193:24.
full 11:10, 41:24, 87:16, 179:13, 194:1.
 24 **full-blooded** 65:8.
full-blown 40:5.
 25 **Fuller** 33:13.
fully 150:22.

1 **funding** 158:16, 187:15.
 2 **future** 38:11, 59:22, 60:7, 64:10, 74:6, 75:4, 76:5,
 3 76:7, 76:8, 76:18, 76:21, 77:19, 78:24, 79:1, 79:15,
 4 97:11, 97:15, 97:19, 97:20, 100:9, 100:20, 145:16,
 5 151:13, 153:21, 155:14, 157:3, 182:14, 183:11,
 6 184:9.
 7 .
 8 .
 9 < G >.
 10 **gallons** 14:22, 128:25.
 11 **GARDNER** 44:15, 44:16, 48:15.
 12 **gas** 13:20, 21:17, 24:10, 24:11, 24:22, 25:3, 140:19.
 13 **gather** 67:6, 68:2, 68:8, 150:6, 150:13, 152:7, 152:12,
 14 169:21.
 15 **gathered** 68:5.
 16 **Gathering** 51:18, 51:25.
 17 **gave** 34:10, 41:6, 73:9, 129:12, 154:10.
 18 **gazillions** 174:4.
 19 **GB** 144:12.
 20 **General** 28:7, 28:11, 45:11, 66:10.
 21 **generation** 54:24, 55:1, 120:9, 150:22, 151:2, 151:9,
 22 157:22.
 23 **generational** 55:25.
 24 **generations** 61:4, 74:6, 75:5, 97:6, 145:17, 183:10.
 25 **genetically** 56:1.
genocide 73:10, 156:8, 156:18, 169:8.
gentleman 113:6, 114:21.
genuine 73:25.
geochemistry 31:17.
geologic 17:7, 21:5, 22:4.
Geological 41:16, 100:16.
geologist 41:17.
geologists 146:20.
geology 15:7.
George 32:15, 80:14, 81:5.
geothermal 115:9.
gets 44:8, 87:10, 119:14, 123:25, 190:25.
getting 47:22, 48:10, 86:1, 107:3, 107:4, 107:5,
 107:13, 108:17, 108:25, 109:13, 146:15, 161:11.
Gila 168:1.
girls 123:10.
give 6:17, 7:16, 27:9, 51:16, 52:14, 58:14, 60:25,
 64:6, 65:1, 86:15, 109:1, 119:8, 176:18.
given 5:10, 53:2, 54:23, 75:20, 147:6, 166:10.
gives 12:10, 103:3.
giving 127:14.
glad 121:3.
glasses 80:8.
global 109:19, 109:23.
glow 123:7.

1 **go-** 178:1.
God 89:24, 180:12.
 2 **gold** 51:1, 89:3, 145:25, 174:2.
goodness 110:8.
 3 **gotten** 152:21.
govern 77:24.
 4 **governed** 170:4.
governing 182:25.
 5 **government** 28:21, 32:23, 39:24, 53:22, 59:2, 73:20,
 79:1, 106:14, 112:16, 166:18, 166:22, 183:25,
 6 194:9.
governments 60:23.
 7 **grab** 49:8, 172:7.
grabbed 115:16.
 8 **graduating** 139:5.
gram 161:2, 161:4.
 9 **Grand** 83:11.
grandchildren 61:3, 61:22, 79:21, 180:22, 181:16,
 10 185:13.
grandfather 88:6, 88:7, 114:3.
 11 **grandkids** 121:24.
Grandma 130:11, 130:14.
 12 **grandmas** 65:9, 67:5, 169:13, 169:18, 171:21, 194:19.
Grandmother 59:3, 75:2, 104:18, 104:23, 105:8,
 13 105:21.
grandpa 130:12, 130:13.
 14 **grandparents** 65:14.
grandpas 169:18.
 15 **grant** 110:18, 110:19, 110:21, 110:24, 156:6.
granted 155:19.
 16 **granting** 32:4, 79:12, 156:7.
graph 188:5.
 17 **grass** 46:19, 70:15, 85:5, 85:23.
grasslands 38:8.
 18 **gravity** 115:6.
Gray 44:15, 44:16, 48:15, 48:23.
 19 **Great** 40:19, 49:4, 52:21, 53:2, 54:25, 55:3, 139:8,
 150:8, 152:2, 152:16, 177:12, 190:6, 191:10,
 20 191:12.
great-grandchild 59:9.
 21 **great-grandchildren** 61:23.
great-grandfather 114:4, 133:15.
 22 **great-grandkids** 114:4.
great-grandmother 59:4, 59:5, 59:8.
 23 **greater** 35:12, 150:25.
greed 104:24, 105:5, 105:23, 156:3.
 24 **greed-driven** 135:13, 136:10.
greedy 123:20.
 25 **green** 12:23, 14:3.
greet 74:18.

1 **Greetings** 56:13.
 2 **grew** 32:10, 38:5, 69:21, 78:9, 85:5, 89:17, 102:18,
 3 120:8, 127:18, 182:16.
 4 **grid** 12:11, 12:19.
 5 **Grimes** 63:6, 63:7.
 6 **grind** 62:14.
 7 **Groom** 96:24.
 8 **gross** 13:9, 13:12, 159:16, 159:17, 160:17.
 9 **ground** 25:9, 62:17, 64:13, 70:1, 77:14, 87:16, 102:23,
 10 109:1, 115:13, 115:19, 115:25, 135:24, 144:8, 172:6,
 11 179:16.
 12 **groundwater** 8:8, 11:6, 12:15, 13:3, 15:23, 16:1,
 13 16:23, 16:24, 17:2, 19:3, 19:8, 25:5, 25:8, 25:14,
 14 35:2, 35:14, 63:18, 133:25, 142:25, 143:4, 143:23.
 15 **group** 9:15, 35:2, 89:8, 98:7, 98:11, 100:7, 100:9,
 16 121:13.
 17 **grow** 80:1, 105:8, 113:11, 173:25, 175:14, 183:17.
 18 **Growing** 46:19, 70:15, 70:16, 85:5.
 19 **grown** 180:15.
 20 **grows** 113:10.
 21 **growth** 113:19, 173:23.
 22 **guarantee** 48:18, 48:19, 125:4, 175:23.
 23 **guardians** 167:2.
 24 **guess** 9:1, 14:7, 31:23, 36:16, 37:6, 65:23, 87:22,
 25 110:16, 147:17, 154:1.
guests 78:13, 112:11, 112:13.
Guidance 20:16.
guidelines 170:24.
guilt 194:14.
guinea 32:22.
guy 113:1, 176:21.
guys 31:13, 46:12, 66:17, 69:8, 77:4, 78:13, 79:13,
 106:25, 107:2, 107:3, 107:14, 114:8, 116:4, 134:13,
 138:22, 145:24, 146:3, 146:16, 148:18, 149:2, 149:7,
 157:2, 172:3, 176:15, 177:13, 183:2.
 .
 .
 < H >.
hagh 195:4, 195:10.
hagh. 195:2.
hair 52:15, 53:5.
half 154:16, 154:17, 168:7, 187:3.
hallway 127:11.
hamburgers 146:8.
Hampshire 34:4.
hand 5:4, 118:9, 157:3.
handle 175:16.
handled 144:10.
hands-on 43:7.
Hanford 58:6, 58:21, 79:4, 184:3.

1 **hang** 172:14, 172:15.
hangman 172:16.
 2 **happen** 71:4, 71:5, 85:14, 91:5, 92:1, 102:19, 105:10,
 124:1, 124:12, 128:14, 130:25, 136:14, 137:20,
 3 143:22, 145:21.
happened 58:6, 91:7, 91:8, 91:24, 114:6, 123:12,
 4 123:24, 134:18, 136:9, 136:24, 136:25, 137:2,
 137:16, 155:23, 187:8, 187:12.
happening 56:7, 79:3, 106:2, 185:16, 188:21.
happens 74:1, 110:16, 128:23, 129:5, 135:22, 136:3,
 6 136:11.
happiness 105:9.
happy 52:11, 52:24, 151:23, 153:6, 181:14, 181:15.
harassment 83:22.
 8 **hard** 6:12, 18:22, 119:5, 145:14, 181:10, 188:10.
Harding 180:7, 180:8, 181:24.
 9 **harm** 180:22.
harmless 35:20.
 10 **Harney** 66:6, 66:7, 66:10.
hate 146:11, 187:9.
 11 **hats** 107:15.
hau 78:4.
 12 **hay** 85:3, 85:23.
hazardous 9:9, 22:3, 63:19, 64:3, 64:11.
 13 **head** 89:3, 89:8, 90:2.
heading 167:16.
 14 **heads** 174:24, 174:25.
healing 69:7.
 15 **health** 32:24, 38:9, 38:10, 38:13, 157:4, 161:19.
heap 41:22.
 16 **hear** 7:19, 13:22, 27:5, 27:15, 27:18, 28:4, 28:8,
 28:9, 29:14, 30:12, 38:19, 56:12, 72:15, 83:15,
 17 94:4, 96:9, 109:5, 149:15, 155:16, 157:10, 160:5.
heard 17:18, 30:10, 31:18, 36:9, 36:12, 38:17, 49:23,
 18 50:7, 50:8, 50:9, 58:5, 72:10, 83:4, 91:17, 113:6,
 114:21, 116:25, 127:16, 145:15, 145:24, 150:19,
 19 154:4, 160:8, 175:24, 188:11.
HEARING 1:1, 2:7, 4:7, 5:18, 5:19, 5:21, 5:25, 6:1,
 20 6:14, 7:14, 14:21, 27:14, 28:25, 29:6, 63:13, 72:9,
 78:11, 80:12, 83:14, 88:5, 118:18, 118:19, 127:2,
 21 127:19, 127:20, 127:25, 128:13, 132:24, 146:4,
 166:8, 173:6, 196:13.
 22 **hearings** 3:23, 3:25, 4:2, 7:6, 27:17, 37:16, 49:23,
 79:5, 119:19, 119:22, 128:21, 128:22, 171:4, 196:6.
 23 **heart** 28:13, 36:20, 57:23, 74:19, 96:8, 110:9, 113:25,
 133:13, 154:22, 163:9, 167:16, 169:13, 184:25.
 24 **heartbeat** 53:7, 150:18.
heartbreaking 160:5.
 25 **hearts** 158:11, 183:3.
heaven 37:22.

1 **heavily** 45:2, 45:4.
heavy 22:24.
 2 **held** 3:23, 29:1, 52:6, 127:4.
Helen 122:3, 122:4, 125:24, 126:6, 128:15.
 3 **hell** 51:12.
Hello 104:7, 106:20, 134:10, 139:1, 147:23, 149:10,
 4 168:20, 179:4.
help 37:17, 40:19, 75:4, 86:2, 94:19, 94:21, 95:9,
 5 130:1.
helpful 6:19, 119:10.
 6 **Hemisphere** 89:12.
Henderson 29:1.
 7 **hereby** 197:12.
hereditary 75:13.
 8 **Hermosa** 140:19.
hiccup 43:22, 43:23, 44:1, 55:21, 58:5, 58:6, 58:7.
 9 **hiding** 63:17, 106:9.
high 13:4, 13:9, 23:10, 25:8, 25:10, 25:19, 43:13,
 10 122:7, 143:5, 161:17, 162:12, 162:20, 162:21.
high-pressure 23:1, 23:4, 25:7.
 11 **high-tech** 151:6, 151:16.
higher 143:20, 160:25, 170:25.
 12 **highest** 53:10, 66:14, 72:25.
highly 143:3.
 13 **Hiha** 76:15.
hill 81:3.
 14 **Hills** 44:24, 45:8, 46:4, 46:8, 50:17, 50:25, 51:9,
 57:22, 65:15, 65:19, 67:3, 73:2, 81:7, 91:23, 141:4,
 15 142:1, 142:24, 143:15, 143:19, 143:20, 144:5,
 144:16, 144:20, 144:23, 145:22, 147:18, 155:10,
 16 171:20, 172:3, 172:8, 179:12, 179:15, 183:7, 189:19,
 190:6, 191:11, 191:14, 194:8, 197:28.
 17 **hired** 31:5.
historic 17:17, 17:24, 21:16, 34:23.
 18 **historically** 97:9, 98:12.
history 65:2, 81:22, 82:5, 82:12, 82:16, 82:24,
 19 104:15, 157:23, 157:25, 186:17.
hit 193:13.
 20 **hobby** 28:1, 28:7, 28:10.
hold 27:13, 51:22, 84:3, 84:20, 90:16.
 21 **holders** 167:23.
holding 89:4, 125:21.
 22 **hole** 84:14, 84:16, 84:17, 84:21, 85:7, 86:9, 129:3.
holes 17:17, 18:2, 58:13, 71:10, 84:20, 85:1, 86:18,
 23 87:12, 87:19, 90:24, 179:11, 179:13.
Hollenbeck 125:13, 129:10, 129:18, 129:19, 129:20,
 24 131:11, 153:13, 174:11, 188:16, 188:25.
Home 59:17, 60:14, 61:7, 61:8, 64:5, 67:24, 78:14,
 25 78:18, 79:17, 99:2, 99:4, 114:9, 124:21, 124:22,
 134:20, 152:19, 156:24, 160:10, 162:8, 166:9, 172:1,

1 180:17, 180:19, 180:24.
 homelands 56:18.
 2 **homes** 60:7, 108:5, 148:13.
 Homestake 41:10, 86:25.
 3 **homesteaded** 133:14.
 hometown 180:15, 186:10.
 4 **honest** 78:20.
 honestly 55:15, 79:17, 182:13, 183:16.
 5 **Honor** 37:13, 47:3, 51:18, 51:25, 73:20, 152:8, 152:10,
 191:6.
 6 **honored** 52:5.
 honors 132:21.
 7 **Hoop** 188:24, 191:15.
 hoops 140:2, 188:17, 188:20.
 8 **hope** 29:23, 31:23, 37:5, 38:1, 130:20, 133:2.
 hopefully 10:9.
 9 **horizontal** 16:13, 16:19.
 horizontally 15:12.
 10 **Horse** 39:19, 57:18, 92:8.
 horses 121:1.
 11 **Hospital** 91:11.
 host 131:15.
 12 **hosting** 38:3.
 Hot 4:2, 23:13, 23:17, 23:19, 24:8, 26:2, 36:4, 39:19,
 13 69:4, 87:22, 124:22, 134:12, 139:10, 146:5, 169:4.
 hour 4:10.
 14 **hours** 38:16, 39:11.
 House 68:18, 85:24, 129:11, 180:24, 192:11, 192:13,
 15 192:14.
 huge 55:13, 104:25, 144:10, 181:9, 183:20, 185:7.
 16 **Human** 8:10, 13:18, 75:2, 77:5, 79:25, 92:21, 98:13,
 99:8, 113:22, 173:15, 176:25, 191:4.
 17 **human-being** 107:19.
 humanity 74:5.
 18 **humans** 35:24, 164:9, 164:14.
 humble 105:17, 192:21.
 19 **hundred** 136:8.
 hundreds 33:9, 55:23, 62:6, 62:7, 112:4.
 20 **hunger** 104:25.
 Hunkpapa 22:14, 49:4, 52:1, 111:10, 113:23, 148:3.
 21 **hunt** 66:8, 148:15, 172:13, 191:21.
 Hunter 129:18, 129:19.
 22 **Huntsville** 144:21.
 hurt 137:18.
 23 **husband** 72:19.
 husbands 70:8.
 24 **hydraulic** 45:11, 46:5, 143:3.
 hydraulically 45:20.
 25 **hydrogeology** 31:17.
 hydrologic 17:8, 21:5.

1 **hydrologist** 31:6, 46:9.
 2 **hydrology** 15:7, 31:9, 44:25, 46:8.
 3 **hysterectomy** 70:22.
 4 .
 5 .
 6 < I >.
 7 **ice** 153:3.
 8 **icons** 82:8.
 9 **idea** 12:10, 72:12, 138:17, 138:19.
 10 **identify** 17:21, 161:9.
 11 **idiotic** 56:4.
 12 **Igloo** 90:21.
 13 **Ignorance** 53:16, 156:3.
 14 **ignorant** 155:15.
 15 **ignore** 34:11, 99:10.
 16 **ignored** 35:5.
 17 **ignoring** 104:15.
 18 **III** 3:10, 3:18, 8:16, 9:3, 9:13, 9:16, 17:9, 17:13,
 19 96:22, 100:24, 117:11, 117:18, 124:24.
 20 **illegal** 155:9.
 21 **illuminous** 123:11.
 22 **imagine** 41:21.
 23 **immediately** 44:20, 70:14, 74:8.
 24 **immemorial** 59:21.
 25 **immigrants** 172:4.
Impact 40:5, 40:7, 140:22, 185:10, 191:1.
impacted 125:1.
impacting 142:21.
impacts 39:2, 39:5, 39:14, 40:10, 40:13.
impaired 168:4.
imperative 139:18.
impermeably 46:1.
implement 146:6.
implemented 20:19.
implementing 18:20.
importance 26:22.
important 21:9, 111:20, 111:21, 142:14, 149:13, 175:8,
 178:14, 185:5, 185:7.
impress 58:25.
in-sitsu 128:18.
In-situ 3:11, 3:14, 8:17, 9:4, 34:6, 41:18, 42:2,
 42:4, 56:23, 96:19, 100:2, 100:14, 100:18, 117:12,
 117:15, 121:17, 128:24, 131:2, 131:19, 170:23,
 172:19.
in. 11:24, 67:1, 116:3, 190:24.
inadequate 54:15.
Inc. 3:7, 117:8.
inches 125:19.
incite 173:14.
include 3:10, 17:14, 117:11.

1 **included** 6:7, 97:22, 119:1, 132:24.
 2 **including** 6:10, 93:1, 119:3, 146:2, 167:7.
 3 **income** 30:23, 62:5, 101:6.
 4 **Incorporated** 56:24.
 5 **increase** 75:25.
 6 **increased** 13:22, 35:16, 142:7, 168:4.
 7 **increasing** 159:12.
 8 **incredibly** 185:5.
 9 **Independent** 68:20.
 10 **India** 146:25, 166:5.
 11 **Indian** 85:16, 147:5, 150:8, 151:17, 151:18, 166:13,
 12 167:7, 167:8, 167:12, 167:20, 172:14, 179:7,
 13 186:15.
 14 **Indians** 166:4.
 15 **indicate** 17:25.
 16 **indicated** 35:3.
 17 **Indigenous** 48:25, 60:22, 61:13, 74:16, 75:1, 76:12,
 18 78:7, 80:3, 88:2, 92:2, 104:5, 105:11, 106:16,
 19 106:21, 112:2, 145:10, 155:3, 156:20, 158:8, 159:2,
 20 179:17.
 21 **indirectly** 35:23.
 22 **industrial** 34:8.
 23 **industries** 34:3, 93:1, 93:6, 97:3.
 24 **industry** 42:14, 42:16, 58:16, 62:8, 93:2, 107:11,
 25 107:12, 109:7, 140:20, 159:8, 177:23.
infancy 42:1.
inflicting 156:8.
influence 74:8, 142:23.
inform 177:2.
information 7:12, 15:16, 43:17, 124:6.
informed 60:23, 99:18, 174:20, 175:3.
infrastructure 131:22.
Ingrid 63:6.
inject 8:19, 9:8, 12:14.
injectate 8:14, 17:4, 17:11, 21:8, 22:2, 26:8, 26:14.
injected 9:10, 14:13, 42:24, 141:18.
injecting 9:17, 15:5, 34:8.
Injection 1:3, 2:16, 2:19, 3:5, 3:7, 3:11, 3:13, 7:23,
 8:3, 8:13, 8:15, 9:4, 9:7, 9:17, 9:25, 11:9, 12:1,
 12:12, 12:13, 14:13, 15:13, 16:9, 16:18, 17:1,
 17:10, 20:22, 21:6, 21:11, 21:24, 21:25, 22:6, 22:8,
 26:19, 63:17, 100:24, 101:2, 117:7, 117:8, 117:12,
 117:14, 141:8.
injustice 182:21.
Inn 29:5.
innocent 122:21.
input 5:20, 27:3.
insensitivity 33:1, 33:16.
inside 13:21, 15:12, 18:2, 19:23, 133:16, 163:24.
instance 36:7, 50:25.

1 *instead* 165:2.
instilled 105:18.
 2 *Instructions* 7:2, 54:25.
insult 65:22.
 3 *insulting* 66:4.
integrity 24:25, 74:3.
 4 *intellectual* 169:14, 169:15.
intelligent 89:14, 163:10.
 5 *intensified* 160:15.
interactions 141:2, 142:25.
 6 *interest* 28:17, 30:15, 94:16, 95:3, 95:5, 108:2,
 197:20.
 7 *interested* 117:3.
interesting 22:20, 41:19, 121:14.
 8 *interests* 108:1.
interests. 51:24.
 9 *internet* 6:12, 119:5, 166:9.
interpolicy 166:3.
 10 *interrupt* 5:5, 94:12.
interrupted 187:7.
 11 *interval* 17:1.
intervenors 187:7.
 12 *interview.* 34:4.
introduce 2:11, 81:25, 111:5.
 13 *intruding* 186:6.
Investigation 144:24.
 14 *investigative* 126:12.
investing 178:1.
 15 *invitation* 10:5.
involved 31:3, 42:19, 43:15, 181:19.
 16 *Involvement* 3:2, 3:3.
Inyan 9:5, 9:15, 11:23, 12:15, 13:2, 13:3, 13:25,
 17 15:1, 22:16, 35:2, 66:13, 69:6, 96:24, 97:7, 98:7,
 98:11, 99:14, 100:7, 100:8, 124:25.
 18 *iron* 13:5.
irradiation 47:24.
 19 *irrational* 46:14.
irrelevant 81:17.
 20 *Irrigation* 85:19, 168:1, 168:5.
IRS 126:22.
 21 *Isaiah* 36:2, 36:3, 101:13, 101:14, 163:17, 163:18.
ISL 46:24, 47:1, 47:5, 140:21.
 22 *ISLA* 145:6, 145:9.
Island 89:22.
 23 *isolate* 25:13.
ISR 8:22, 9:8, 11:7, 14:11, 18:4, 19:12, 26:9, 34:19,
 24 93:1, 133:19.
issue 5:6, 10:10, 15:3, 26:23, 27:20, 35:7, 40:23,
 25 46:15, 47:9, 72:24, 87:12, 97:7, 99:21, 109:19,
 109:23, 109:24, 110:13, 118:10, 127:4, 128:1, 136:1,

1 137:3, 159:10, 168:10.
 issued 3:4, 7:4, 8:25, 10:20, 28:24, 34:9, 34:13,
 2 117:6, 119:20.
 issues 72:17, 72:20, 134:21, 138:13, 141:25.
 3 **it'll** 56:4, 62:16, 130:5.
 iterative 19:25.
 4 **itself** 96:25, 175:19.
 5 .
 6 .
 < J >.
 Jacque 27:19.
 Jacqueline 197:11, 197:25.
 7 **jail** 126:24.
 James 1:10.
 8 **JANIE** 71:19, 71:21, 72:2.
 Japan 75:7, 91:24.
 9 **Japanese** 122:24.
 JARVIS 140:11, 140:12, 140:13, 140:15, 140:16, 140:17,
 10 145:1, 145:3.
 jealous 82:17.
 11 **jeopardize** 50:13, 50:16, 139:22.
 Jersey 134:17, 135:10, 136:6, 136:7.
 12 **Jesus** 88:15.
 Jim 63:7, 132:19, 132:20.
 13 **job** 27:5, 31:5, 62:6, 77:8, 82:20, 108:23, 125:8,
 130:4, 151:10.
 14 **jobs** 33:18, 36:6, 36:7, 36:19, 60:7, 130:21, 132:10,
 132:12, 140:4, 173:22, 177:25, 186:14, 187:11.
 15 **John** 33:12, 133:8, 133:12.
 join 41:11.
 16 **joint** 18:1, 97:24.
 journalist 168:8.
 17 **journey** 192:24.
 joy 152:17.
 18 **Judaism** 82:10.
 Judge 8:25.
 19 **judges** 127:7, 128:3.
 judgment 181:20.
 20 **JUDICIAL** 2:1, 2:5, 27:22, 28:2, 29:24, 32:5, 35:25,
 37:8, 41:1, 44:2, 44:13, 48:22, 54:1, 54:5, 55:5,
 21 56:10, 60:16, 61:14, 63:4, 64:15, 64:21, 69:13,
 71:16, 71:19, 74:13, 76:9, 78:5, 80:4, 80:7, 84:7,
 22 84:10, 87:24, 91:13, 92:3, 94:11, 95:12, 95:16,
 101:8, 101:11, 102:15, 103:22, 106:17, 111:2,
 23 115:20, 116:9, 116:17, 116:20, 122:1, 125:22, 126:2,
 129:15, 131:10, 133:7, 134:7, 138:24, 140:9, 140:14,
 24 144:25, 145:4, 145:11, 147:12, 147:16, 147:20,
 149:8, 152:25, 153:22, 154:12, 154:19, 154:23,
 25 158:19, 158:24, 162:22, 163:15, 165:4, 165:22,
 168:17, 173:1, 173:3, 178:18, 179:2, 180:4, 181:23,

1 184:12, 184:14, 185:25, 187:17, 187:21, 187:23,
 188:2, 189:3, 189:10, 195:21.
 2 **Judy** 69:15, 69:16, 69:18.
 jugs 154:9.
 3 **jump** 140:2, 188:17, 188:20, 188:24, 188:25.
 jurisdictional 141:16.
 4 **Justice** 9:22, 39:25, 72:7, 182:11.
 .
 5 .
 < K >.
 6 **K.** 66:7, 197:11, 197:25.
 Kara 9:5, 9:15, 11:23, 12:15, 13:2, 13:3, 13:25, 15:1,
 7 22:17, 35:2, 66:13, 69:6, 96:24, 97:7, 98:7, 98:11,
 99:14, 100:7, 100:8, 124:25.
 8 **Kathleen** 95:22, 95:23, 96:6, 96:15, 101:10, 140:11,
 140:12, 140:13, 140:16, 140:17, 145:3, 158:25,
 9 159:1, 162:25, 184:13, 184:16.
 Kazakhstan 103:8.
 10 **Keene** 34:4.
 Keep 16:19, 64:13, 68:9, 83:14, 112:18, 169:2, 170:1,
 11 170:21, 171:19, 191:17, 191:18, 193:16, 194:20,
 194:25.
 12 **keeps** 146:2.
 Keith 30:1, 30:6.
 13 **Kelsey** 92:5, 92:6, 92:7, 94:9, 94:13, 95:13.
 Kenneth 165:6, 165:7, 165:8.
 14 **kid** 86:15.
 kidney 69:5.
 15 **kids** 56:1, 114:2, 114:5, 114:18, 114:19, 121:13,
 121:24, 130:20, 132:5, 180:18, 181:7, 181:9,
 16 187:14.
 KILE 63:8, 63:9, 64:16, 185:25, 186:2, 187:17, 187:19,
 17 187:21, 187:22.
 kill 75:15, 114:24, 178:3.
 18 **killed** 52:6, 88:14, 122:22.
 killling 75:9, 158:18.
 19 **kills** 114:22.
 kind 7:17, 14:11, 24:7, 37:1, 40:24, 48:16, 54:17,
 20 88:8, 102:5, 107:1, 107:7, 107:15, 107:16, 123:25,
 129:5, 146:19, 151:10, 163:23, 173:8, 174:18, 175:2,
 21 176:19, 176:20, 177:6, 186:7, 194:5.
 kindness 105:11, 153:7.
 22 **kinds** 28:13, 31:24, 115:9, 123:5, 123:12, 124:7,
 124:15, 174:6, 177:25.
 23 **Knee** 179:6.
 knocked 126:23.
 24 **Knowledge** 31:16, 31:25, 96:10, 151:14, 151:16, 169:14,
 169:15, 169:17, 181:21.
 25 **known** 85:17.
 knows 123:18, 130:19.

1 **Koopman** 41:3, 41:4, 44:4, 44:14.
Kootenai 168:9.
 2 **Kurt** 37:10, 37:11.
 3 .
 4 .
 < L >.
 4 **Labeling** 146:7, 146:9.
Lake 32:25, 85:4, 85:12, 86:11.
 5 **Lakota** 22:15, 49:5, 52:2, 53:4, 53:24, 55:4, 56:16,
 56:17, 58:2, 59:11, 59:18, 59:19, 65:8, 73:3, 73:19,
 6 74:23, 81:7, 81:8, 83:1, 89:21, 111:10, 112:1,
 113:23, 145:20, 146:7, 152:16, 155:2, 155:10,
 7 172:22, 172:23, 172:25.
Lakota-dakota 78:14, 78:17, 183:8.
 8 **Land** 11:2, 11:7, 28:14, 46:22, 51:22, 57:19, 57:21,
 65:10, 66:2, 66:3, 66:21, 66:22, 67:9, 67:10, 67:14,
 9 72:7, 73:1, 73:11, 73:14, 73:19, 74:2, 79:7, 80:2,
 81:7, 83:18, 84:4, 102:8, 102:10, 109:21, 109:22,
 10 112:4, 112:15, 112:17, 112:22, 113:15, 120:11,
 120:13, 125:13, 126:11, 126:20, 130:24, 130:25,
 11 141:7, 143:5, 145:19, 145:20, 148:24, 156:21,
 163:20, 165:16, 167:12, 172:2, 172:6, 172:7, 175:17,
 12 179:10, 179:11, 186:18, 189:16, 189:19, 191:2.
landfills 162:18.
 13 **landowner** 50:11.
landowners 29:20, 39:22, 50:10, 50:14, 50:18.
 14 **lands** 73:2, 106:8, 148:14, 167:7.
landscape 143:5.
 15 **language** 63:14, 67:17, 78:16, 111:5, 183:9, 189:22.
language. 49:1, 61:13, 74:17, 76:13, 78:8, 80:3, 88:3,
 16 92:2, 104:6, 106:16, 145:10, 155:3, 179:17.
Laramie 57:17.
 17 **Large** 46:3, 50:23, 142:16, 142:20, 142:21.
large-scale 10:23, 39:10, 39:15.
 18 **larger** 44:20.
largest 45:3.
 19 **Last** 3:22, 34:12, 49:22, 56:8, 68:19, 72:9, 96:13,
 99:17, 111:8, 112:10, 114:7, 148:20, 151:24, 178:22,
 20 182:18, 194:5, 195:24.
lasted 122:8, 187:3.
 21 **lasting** 34:23.
late 30:22, 56:7, 69:22, 69:23.
 22 **later** 86:8, 124:20, 136:13, 138:14, 163:1, 186:24.
laughed 162:6.
 23 **laughing** 195:7.
launder 13:14.
 24 **law** 34:12, 40:4, 99:7, 166:24, 167:1.
laws 73:1, 100:6.
 25 **lawsuits** 33:19.
layers 87:7, 87:8, 88:23, 91:2.

1 **layout** 12:11.
 2 **leach** 41:22, 56:23, 62:14, 128:18, 128:24, 170:23,
 3 172:20.
 4 **lead** 55:2, 56:25.
 5 **leader** 52:22.
 6 **leaders** 53:25, 54:10.
 7 **leadership** 53:21, 54:9, 54:15, 54:17, 152:11, 186:9.
 8 **leak** 58:9, 75:7, 128:23, 171:11.
 9 **leakage** 21:2.
 10 **leaked** 58:8, 58:10, 129:1, 129:3, 129:4.
 11 **leaking** 17:22.
 12 **leaks** 68:12, 75:22, 124:1, 156:10.
 13 **leap** 152:17.
 14 **learn** 124:8, 131:4, 151:11, 159:9.
 15 **learned** 69:10, 72:10, 83:4, 92:24, 93:9, 93:11, 93:18,
 16 93:23, 94:14, 94:25, 95:5, 131:1, 159:9, 159:13.
 17 **learning** 72:16, 72:19, 174:9.
 18 **leasing** 28:14.
 19 **least** 34:15, 81:16, 81:17, 85:4, 98:17, 102:6, 127:22,
 20 146:9, 174:16.
 21 **Leave** 6:18, 6:22, 95:19, 114:10, 119:13, 179:16,
 22 192:9.
 23 **leaving** 194:23.
 24 **led** 104:23.
 25 **left** 4:21, 6:3, 41:9, 66:9, 69:25, 87:14, 97:5, 118:3,
 118:21, 126:21, 149:11, 155:24, 187:25.
leftovers 176:1.
legacy 97:5.
legal 167:24.
Leigh 104:4, 104:5, 104:7, 106:18.
length 81:5.
lenses 35:4.
less 141:5, 143:15, 144:6, 164:2.
lethal 64:7.
letter 10:5, 87:19, 104:8.
letting 131:7.
level 16:7, 25:8, 161:16, 161:17, 162:4, 162:19,
 162:20, 163:12, 183:15.
levels 13:9, 25:5, 25:11, 25:14, 25:15, 68:19, 142:15,
 142:25, 159:11, 162:11, 162:14.
Lewisite 144:13.
liars 74:10.
license 10:21, 57:1, 63:22.
licensed 30:7.
licensing 39:3, 39:6, 40:11.
lie 47:21.
lies 11:15, 19:11, 126:1.
life 52:12, 52:20, 52:25, 61:18, 93:22, 108:12,
 108:17, 111:23, 122:22, 125:5, 134:1, 134:2, 139:4,
 139:19, 145:24, 149:23, 151:14, 164:12, 164:13,

1 164:14, 169:24, 180:16, 185:1.
 life-giver 75:3.
 2 **lifestyle** 53:8.
 lifetime 122:15, 136:24, 138:16.
 3 **lifted** 4:23.
 light 62:10.
 4 **lightly** 82:14.
 likely 139:12, 144:1.
 5 **likes** 80:24.
 limestone 23:14.
 6 **limit** 4:19, 20:9, 142:10.
 Linda 120:3, 120:4.
 7 **line** 12:20, 12:23, 15:17, 19:21, 20:2, 23:22, 60:1,
 60:2, 90:8.
 8 **lines** 90:6, 90:7.
 linguistics 182:11.
 9 **Lisa** 2:23.
 list 33:13, 44:17, 159:15.
 10 **listen** 3:19, 32:3, 53:18, 117:19, 138:22, 183:2,
 195:11.
 11 **listened** 120:16.
 listening 61:12, 81:14, 124:3, 128:2, 151:17, 151:18.
 12 **liter** 8:11, 21:15, 21:19, 21:22, 142:9, 142:11, 161:2,
 161:6.
 13 **literally** 157:2, 182:18.
 literature 125:25, 149:13.
 14 **little** 4:4, 4:6, 7:11, 7:19, 13:1, 33:4, 48:3, 55:20,
 55:21, 56:4, 57:25, 58:1, 60:6, 66:18, 69:25, 70:1,
 15 70:3, 70:9, 70:10, 82:13, 82:16, 84:19, 86:17,
 106:4, 116:11, 123:25, 138:4, 138:5, 139:11, 145:23,
 16 148:8, 174:1, 175:20, 177:18, 193:10, 193:15,
 195:11.
 17 **Live** 30:9, 38:6, 38:22, 61:11, 63:9, 68:14, 69:18,
 88:5, 92:7, 92:9, 94:2, 95:9, 95:10, 102:1, 110:3,
 18 110:7, 112:18, 113:3, 114:11, 114:12, 115:12, 116:3,
 116:5, 122:5, 125:6, 130:3, 130:12, 130:15, 133:13,
 19 133:16, 133:24, 136:20, 136:21, 136:22, 136:23,
 139:2, 139:9, 140:7, 148:12, 148:14, 151:22, 152:4,
 20 152:5, 158:5, 158:14, 168:25, 171:14, 176:16,
 180:25, 181:3, 181:14, 185:12, 185:13, 194:6.
 21 **lived** 30:19, 32:13, 61:17, 70:8, 70:19, 103:13,
 121:21, 138:9, 165:14, 180:9, 180:16, 189:20.
 22 **livelihood** 38:11, 134:1.
 livelihoods 133:25.
 23 **lives** 54:7, 54:23, 55:23, 68:5, 68:15, 68:16, 101:24,
 121:9, 130:14, 134:22, 151:20, 151:23, 191:24,
 24 192:7, 192:14.
 livestock 86:14, 98:13, 99:6.
 25 **living** 32:9, 58:21, 75:9, 75:21, 137:8, 150:14,
 160:10, 162:8.

1 **lixiviant** 12:14, 14:12.
lixivate 143:23.
 2 **loads** 135:1.
local 29:15, 49:8, 97:6, 109:20, 109:24, 109:25,
 3 139:13, 154:1, 154:5, 174:20, 175:2.
locals 155:17.
 4 **located** 11:24, 12:24, 13:8, 17:19, 18:2, 21:11, 96:19,
 133:19, 141:4, 144:5.
 5 **location** 19:18, 21:18.
locations 11:25, 46:6.
 6 **LOCKE** 78:6, 78:7, 182:9.
logs 17:24, 24:13, 24:18, 25:1.
 7 **long** 30:5, 34:23, 90:6, 90:7, 90:8, 111:7, 112:17,
 112:21, 123:17, 130:2, 137:21, 140:3, 148:20,
 8 191:16, 193:22.
long-term 142:17.
 9 **longer** 54:17, 105:10, 106:6.
longest-lived 26:11.
 10 **Look** 16:4, 18:12, 18:24, 22:13, 25:23, 33:23, 43:16,
 46:10, 51:23, 53:20, 59:16, 66:25, 79:18, 89:1,
 11 89:25, 90:2, 90:5, 93:23, 107:21, 111:13, 112:15,
 113:3, 113:4, 113:8, 114:2, 114:5, 115:14, 132:3,
 12 132:11, 135:15, 140:4, 149:18, 152:4, 156:25,
 168:22, 171:2, 171:15, 177:21, 182:12, 183:16,
 13 184:2, 188:5, 195:6.
looked 24:14, 43:4, 49:12, 80:15, 80:19, 81:12,
 14 193:14.
looking 24:11, 24:21, 25:1, 25:5, 25:17, 28:21, 42:3,
 15 95:2, 156:15, 166:5, 166:6, 195:5.
looks 9:24, 26:4, 28:22, 168:11, 188:6.
 16 **loop** 42:16.
lose 46:18, 70:6, 189:25.
 17 **losing** 16:16.
loss 53:13, 73:17.
 18 **losses** 33:13.
lost 14:7, 15:1, 32:15, 52:11, 52:14, 100:21, 111:25.
 19 **lot** 23:18, 28:19, 30:10, 31:18, 31:20, 37:21, 44:4,
 49:21, 55:11, 62:21, 69:10, 70:17, 72:10, 72:19,
 20 83:4, 86:25, 91:10, 92:17, 92:18, 92:24, 93:7,
 93:10, 112:12, 131:1, 132:5, 135:18, 135:19, 136:25,
 21 145:15, 147:10, 157:18, 181:17.
Lots 24:16, 36:14, 178:3.
 22 **loud** 150:18.
loudly 96:17.
 23 **love** 104:11, 104:12, 130:1.
loved 33:7, 76:5.
 24 **low** 25:21, 48:6, 48:13, 48:15, 159:20, 159:21, 159:22,
 160:4, 160:22, 161:12, 161:23, 163:13.
 25 **Lower** 14:2, 14:4, 86:1, 143:5, 143:10.
lowered 15:21, 16:14.

1 **lucrative** 113:20.
lunch 179:19, 179:24.
 2 **lung** 186:23.
lungs 13:21, 113:25, 158:11.
 3 **lying** 192:12.
Lynne 2:20.
 4 .
 .
 5 < M >.
machinery 151:16.
 6 **mad** 123:25.
Madison 22:9, 22:12, 22:25, 23:1, 23:6, 23:14, 25:6,
 7 25:7, 25:15, 25:24, 26:3, 45:1, 45:13, 46:2.
magical 189:23.
 8 **magnetic** 115:5, 115:7.
Mahpiya 49:2.
 9 **main** 130:8, 130:22.
mainland 83:12.
 10 **Mainly** 102:1, 153:5.
maintain 15:22, 39:25, 74:3.
 11 **maintains** 166:22.
major 15:15, 17:15, 45:16, 75:17.
 12 **majority** 96:11, 181:6.
Man 32:13, 50:4, 76:19, 88:14, 127:16, 165:25,
 13 176:24.
Management 11:2.
 14 **manager** 2:15, 129:21, 174:10.
mandate 100:6.
 15 **mandates** 100:11.
manganese 13:5.
 16 **manipulate** 98:5.
mankind 106:14.
 17 **map** 11:12, 12:9, 17:16, 17:19.
maps 14:1.
 18 **margins** 75:18.
Mark 90:3, 90:17, 102:16, 102:17, 125:12, 129:10,
 19 129:20, 153:14, 188:25, 189:2.
market 188:14.
 20 **married** 180:15.
Marsland 57:3.
 21 **Marta** 80:5.
Martha 80:5, 80:6, 80:10.
 22 **Martin** 80:6, 80:8, 80:9, 80:10, 84:8.
Mary 122:3, 122:4, 125:24, 126:6, 128:15.
 23 **mass** 157:12.
massacred 147:8.
 24 **massive** 97:4.
match 14:1.
 25 **material** 47:19, 62:17, 141:4, 144:5.
materials 6:9, 119:2.

1 **math** 121:12, 121:14.
matriarch 79:23.
 2 **Matt** 30:2, 30:4, 30:5, 32:7, 32:8, 36:1, 165:24,
 165:25, 168:18, 187:25, 188:3, 188:5, 189:4.
 3 **matter** 6:8, 55:16, 72:21, 93:12, 93:14, 93:18, 93:20,
 94:1, 102:4, 114:13, 119:1, 146:19, 148:11, 167:16.
 4 **maximum** 14:21.
Mayo 75:14.
 5 **mayor** 131:14, 132:19.
mayored 154:17.
 6 **Mclain-vanderpool** 2:23.
mean 46:7, 58:6, 65:21, 83:5, 85:6, 87:13, 87:15,
 7 113:11, 155:14, 156:1, 157:11, 159:22, 164:8, 170:8,
 174:11, 178:6, 185:22.
 8 **meaningful** 132:7.
means 21:13, 47:4, 59:18, 83:25, 84:1, 84:4, 84:5,
 9 93:15, 155:2.
meant 65:2.
 10 **measure** 25:13, 48:9, 161:14.
measurement 161:10.
 11 **meat** 146:8, 146:10.
mechanism 142:14.
 12 **medicine** 54:9, 59:12.
medicines 68:3.
 13 **meet** 9:9, 26:20, 48:5, 97:25.
meeting 10:9, 166:3.
 14 **meetings** 96:4, 96:13, 99:17.
meets 8:23.
 15 **melted** 70:14, 122:23.
melts 171:10.
 16 **MEMBER** 43:25, 48:11, 48:13, 71:18, 72:1, 84:9, 94:8,
 94:10, 95:14, 96:5, 153:16, 179:18, 179:22, 179:25,
 17 180:3, 182:8.
members 5:12, 39:25, 74:21, 118:15, 120:24.
 18 **Members.** 188:1.
memorandum 98:4, 98:9, 99:19.
 19 **memory** 152:12.
men 51:21, 54:10, 54:14, 57:3, 77:25, 106:9, 173:12.
 20 **mention** 26:6, 45:22, 60:21.
mentioned 26:10, 27:7, 44:25, 46:25, 60:20, 146:5.
 21 **mess** 126:21, 155:24.
messages 152:1.
 22 **messed** 128:11, 149:4.
messenger 150:9.
 23 **met** 10:6, 174:11.
metal-contained 143:24.
 24 **method** 63:2, 103:10.
mic 96:5, 96:9, 140:15.
 25 **Michigan** 103:14.
Mickelson 80:15, 81:6.

1 **microphone** 4:12, 117:22.
microphones 133:9.
 2 **Middle** 36:4, 90:6, 100:1.
Miengun 55:7, 55:8.
 3 **migrate** 21:7, 22:11.
migrated 190:22.
 4 **migration** 17:10, 21:7.
MIKE 41:3, 41:4, 44:4.
 5 **mile** 85:9.
Miles 30:9, 56:18, 84:23, 86:9, 131:20, 138:25, 139:1,
 6 141:5, 143:16, 144:6.
military 89:2.
 7 **Milk** 147:22, 147:23, 148:2.
mill 30:24, 61:18, 62:13, 70:23.
 8 **milligrams** 8:11, 21:14, 21:19, 21:22, 142:8, 142:11.
million 60:12, 128:25, 156:13.
 9 **Millions** 55:22, 112:3, 138:4.
millirem 161:13.
 10 **mind** 38:24, 39:7.
mind-numbing 33:14.
 11 **minds** 158:11.
Mine 10:23, 34:10, 42:20, 47:1, 47:5, 56:24, 57:2,
 12 57:3, 62:18, 62:20, 68:18, 101:21, 101:22, 106:3,
 113:12, 126:9, 133:17, 140:21, 155:23, 164:17,
 13 169:2, 170:13, 173:24, 176:7, 178:2, 179:9, 187:8.
mined 87:1, 177:9.
 14 **mineral** 8:17, 23:7, 28:14.
mineralization 24:2.
 15 **minerals** 41:23.
Mines 30:22, 33:9, 41:8, 41:20, 58:10, 73:22, 121:12,
 16 146:12, 178:7, 182:14, 182:15.
minimize 163:11, 163:12.
 17 **minimized** 162:6.
Mining 28:12, 28:16, 29:16, 33:21, 34:6, 34:14, 36:5,
 18 41:21, 43:24, 46:24, 47:11, 50:12, 50:15, 58:19,
 61:2, 62:11, 64:9, 69:12, 69:19, 69:24, 72:3, 76:1,
 19 100:14, 100:18, 100:25, 101:5, 113:7, 113:8, 113:10,
 113:17, 113:20, 121:7, 121:18, 124:4, 128:19, 131:2,
 20 135:14, 165:16, 168:11, 172:5, 172:20, 172:23,
 176:1, 176:6, 179:14.
 21 **Minnelusa** 9:11, 21:11, 21:18, 21:21, 22:5, 22:6, 22:8,
 22 22:19, 22:23, 23:3, 23:8, 23:10, 23:16, 23:25, 24:3,
 24 24:16, 24:19, 24:20, 24:25, 25:6, 25:10, 25:15,
 25 25:24, 26:4, 45:2, 45:7, 45:13, 46:2, 59:17.
Minter 2:14, 37:14.
minute 4:21, 14:22, 118:3, 153:1.
minutes 4:20, 4:23, 5:9, 60:14, 101:9, 118:1, 118:2,
 118:4, 187:25.
misconception 120:20.
misconstrue 67:13.

1 **mishaps** 121:7.
missing 24:18.
 2 **mission** 8:1.
Missouri 60:15, 78:9, 141:22, 141:23, 156:13.
 3 **mistake** 105:11.
mistakes 124:1.
 4 **mists** 68:12.
misunderstood 105:12.
 5 **Mitakuyepi** 56:13.
mitigation 100:17.
 6 **mixing** 26:14.
Mni 84:9, 145:24.
 7 **mobilize** 12:17.
mobilizing 9:18.
 8 **modern** 151:6.
Mom 68:16, 130:18, 186:11, 186:22.
 9 **moment** 4:3, 110:5, 185:8.
moms 67:22, 71:18.
 10 **Monday** 4:1, 96:2, 121:12.
monetary 137:13, 146:1.
 11 **Money** 51:8, 73:17, 88:8, 88:17, 89:25, 108:14, 108:15,
 135:11, 135:20, 136:4, 136:11, 137:13, 148:19,
 12 148:20, 154:21, 155:18, 164:8, 164:15, 164:16,
 164:18, 164:23, 164:24, 177:22, 182:23, 182:24,
 13 187:15, 194:10, 194:12, 194:13, 194:14, 194:15.
monitor 19:6, 19:19, 63:25, 171:5, 171:6, 171:9,
 14 171:11.
monitored 16:22, 138:12.
 15 **monitoring** 12:21, 12:25, 14:9, 16:5, 16:12, 16:22,
 17:20, 18:3, 18:7, 18:13, 18:21, 18:22, 19:5, 19:18,
 16 19:21, 20:2, 20:12, 20:14, 42:8.
monitors 192:3.
 17 **Montana** 168:9.
months 103:17, 120:8, 183:24, 186:24.
 18 **moribund** 34:1.
morning 80:15, 194:22, 195:1.
 19 **Mostly** 82:4, 106:24, 108:24, 110:6, 110:14, 159:14.
Mother 56:19, 59:3, 75:2, 77:15, 105:3, 105:6, 115:11,
 20 123:17, 123:25, 160:16.
MOUNTAIN 111:3, 111:4, 111:9, 115:21, 115:22, 116:10,
 21 173:4, 173:5.
mourn 52:8.
 22 **mourned** 52:21.
mourning 52:10, 52:13, 52:23, 150:5.
 23 **mouth** 37:12, 47:22, 193:15.
mouthing 44:4.
 24 **move** 19:13, 20:1, 147:10, 151:4, 151:5, 152:15, 196:3,
 196:4.
 25 **moved** 29:11, 30:18, 35:1, 46:23, 76:25, 120:7.
movement 19:7.

1 **movie** 123:10.
movies 123:9.
 2 **moving** 17:4, 18:8, 18:14, 150:15.
Ms 4:3, 7:10, 7:13, 37:13, 54:1, 55:6, 60:16, 64:16,
 3 69:14, 71:17, 74:14, 76:10, 101:9, 122:2, 125:23,
 126:3, 129:16, 140:15, 145:1, 153:23, 154:13,
 4 154:20, 158:19, 162:23, 163:16, 173:2, 181:24,
 185:25, 187:17, 187:21, 188:4, 189:5.
 5 **Mt** 197:29.
mucky 85:11, 86:10.
 6 **multiple** 98:10.
mumble 36:21.
 7 **municipal** 101:4, 162:18.
municipality 160:9, 162:10.
 8 **munitions** 144:10.
murder 150:4.
 9 **murderer** 157:12.
mustard 144:12.
 10 **myself** 2:8, 38:23, 81:25, 111:5, 140:5, 192:21,
 192:22.
 11 .
 12 < N >.
NAGRPA 78:12.
 13 **naive** 105:22.
Najin 56:16.
 14 **Nakota** 74:23, 89:21.
name 2:4, 4:18, 30:6, 32:8, 36:3, 37:11, 49:2, 49:3,
 15 55:8, 56:15, 56:16, 61:16, 63:9, 65:6, 76:14, 80:11,
 86:4, 88:5, 92:6, 104:7, 111:9, 116:19, 117:25,
 16 120:4, 122:4, 126:5, 129:19, 131:14, 133:12, 134:10,
 139:1, 140:12, 140:16, 148:2, 155:1, 158:6, 165:8,
 17 179:5, 184:15, 186:1, 186:2, 195:18.
named 59:20, 66:6, 66:11, 88:14.
 18 **names** 32:17, 124:16, 191:3.
NANCY 63:8, 63:9, 186:2, 187:19, 187:22.
 19 **Nation** 49:5, 53:1, 53:14, 53:23, 55:3, 55:4, 58:3,
 58:4, 59:13, 74:23, 81:8, 90:13, 105:13, 149:17,
 20 149:24, 150:7, 151:3, 151:12, 152:8, 152:16, 189:21,
 190:8, 190:25.
 21 **national** 170:4.
nationalities 181:11.
 22 **Nations** 60:21, 61:5, 72:25, 150:9, 150:12, 189:20,
 191:20, 192:18.
 23 **nationwide** 34:14.
Native 60:24, 76:16, 89:21, 168:7, 182:10.
 24 **Natural** 10:22, 49:16, 107:23, 120:25, 121:5, 160:19,
 169:20, 169:24, 179:15.
 25 **Naturally** 13:3, 13:4, 160:12.
nature 28:16, 104:13.

1 **near** 3:8, 23:19, 26:2, 28:13, 32:22, 92:9, 96:19,
 117:9, 130:16, 140:22, 142:20, 165:16.
 2 **nearby** 58:21, 132:12, 140:5.
Nebraska 3:24, 30:8, 46:21, 56:21, 56:22, 59:25,
 3 63:10, 63:11, 165:17, 170:19, 186:4.
necessarily 43:1, 44:19.
 4 **need** 11:11, 28:2, 36:8, 36:11, 43:18, 51:15, 60:17,
 61:5, 77:6, 88:8, 91:14, 115:12, 118:5, 130:4,
 5 145:1, 145:20, 147:13, 155:10, 155:13, 156:15,
 158:14, 162:23, 164:11, 165:1, 166:1, 173:16,
 6 173:17, 178:11, 178:13, 179:13, 189:6.
needed 126:14.
 7 **needs** 34:1, 91:5, 95:20, 137:4, 138:12, 182:5.
negotiated 57:17.
 8 **neighbor** 64:12, 85:9.
neighbors 29:7, 40:17.
 9 **neither** 69:12, 197:18.
Nemo 139:9.
 10 **nephews** 74:21.
New 17:24, 34:4, 53:22, 54:24, 55:1, 57:1, 57:2,
 11 75:12, 134:17, 135:10, 136:6, 136:7, 140:2, 150:16,
 150:22, 151:2, 151:9, 152:2, 152:13.
 12 **News** 32:25.
Newton 2:20.
 13 **Next** 22:18, 30:4, 37:12, 47:21, 64:24, 84:10, 95:22,
 104:4, 113:1, 126:15, 145:6, 145:13, 147:22.
 14 **nice** 56:9, 60:7, 66:17, 139:25.
nicest 85:25.
 15 **night** 68:19, 79:17.
nine 61:22, 125:19, 183:10, 183:24, 186:24.
 16 **Ninth** 168:2.
No. 51:7, 83:25, 84:1, 84:4, 84:5, 110:23, 125:5.
 17 **Nobody** 71:11, 112:17, 112:22, 137:20.
non-transmissibility 45:17.
 18 **none** 129:2, 180:12.
nor 5:15, 118:17, 184:6, 197:19.
 19 **North** 57:2, 75:1, 85:9, 132:8.
northeast 23:23, 74:20.
 20 **Northern** 56:19, 89:12.
northwest 30:9, 131:20.
 21 **Notary** 197:32.
note 194:22.
 22 **notes** 34:7.
Nothing 97:1, 103:18, 106:7, 113:18, 151:7, 160:7,
 23 175:13, 194:16.
notice 5:15, 10:15, 10:16, 107:3, 147:1.
 24 **noticed** 175:10, 177:6, 177:12.
November 59:4.
 25 **nowhere** 56:5, 147:9, 195:3.
NRC 34:1, 40:8, 40:16, 47:12, 48:5, 127:24, 127:25,

1 128:9, 128:21, 146:4, 171:4.
 Nuclear 10:19, 18:19, 32:17, 32:21, 33:3, 33:10,
 2 33:13, 33:22, 35:1, 35:21, 38:24, 39:9, 70:11,
 71:22, 100:23, 102:19, 127:17, 134:19, 135:6,
 3 188:13, 188:15, 188:22.
 number 15:6, 27:7, 69:16, 90:1, 136:13, 161:25.
 4 **numerous** 17:6, 21:4, 45:21, 45:22, 46:3, 120:15.
 5 .
 .
 < 0 >.
 6 **O'connor** 129:17, 147:21.
 oath 67:19, 191:19, 192:18.
 7 **Obama** 33:25.
 objecting 28:19.
 8 **objections** 44:5.
 oblige 153:6.
 9 **observation** 107:22.
 observed 143:13, 143:14.
 10 **obtained** 150:1.
 obvious 93:10.
 11 **Obviously** 55:10, 110:10.
 occupied 89:11.
 12 **occur** 19:7, 26:9, 143:18.
 occurred 85:8, 104:14.
 13 **occurring** 13:3, 64:3, 160:12.
 occurs 143:2.
 14 **ocean** 75:8, 75:9, 91:25.
 Oceti 74:22, 81:9.
 15 **Oelrichs** 169:19.
 offend 185:18, 185:20.
 16 **offer** 69:3.
 offered 41:10.
 17 **offers** 28:15.
 Office 2:16, 2:24, 3:2, 6:13, 119:6, 131:25, 132:14.
 18 **OFFICER** 2:1, 2:5, 27:22, 28:2, 29:24, 32:5, 35:25,
 37:8, 41:1, 44:2, 44:13, 48:22, 54:1, 54:5, 55:5,
 19 56:10, 60:16, 61:14, 63:4, 64:15, 64:21, 69:13,
 71:16, 71:19, 74:13, 76:9, 78:5, 80:4, 80:7, 84:7,
 20 84:10, 87:24, 91:13, 92:3, 94:11, 95:12, 95:16,
 101:8, 101:11, 102:15, 103:22, 106:17, 111:2,
 21 115:20, 116:9, 116:17, 116:21, 122:1, 125:22, 126:2,
 129:15, 131:10, 133:7, 134:7, 138:24, 140:9, 140:14,
 22 140:18, 144:25, 145:4, 145:11, 147:12, 147:16,
 147:20, 149:8, 152:25, 153:22, 154:12, 154:19,
 23 154:23, 158:19, 158:24, 162:22, 163:15, 165:4,
 165:22, 168:17, 170:18, 173:1, 173:3, 178:18, 179:2,
 24 180:4, 181:23, 184:12, 184:14, 185:25, 187:17,
 187:21, 187:23, 188:2, 189:3, 189:10, 195:21.
 25 **offices** 61:8.
 official 132:14.

1 **officials** 59:2, 91:17.
 2 **often** 161:20, 167:6.
 3 **Ogallala** 45:10.
 4 **Oglala** 56:17, 61:1, 65:7, 65:8, 65:9, 67:6, 68:1,
 5 68:16, 68:25, 88:6, 168:21, 169:19, 186:13, 187:6,
 6 187:10, 187:12, 189:13.
 7 **Ohliger** 134:9, 134:10, 134:11.
 8 **oil** 21:16, 24:10, 24:11, 24:22, 25:3, 51:2, 63:14,
 9 77:13, 121:2, 135:5, 140:19, 154:2.
 10 **Okay** 27:22, 36:22, 41:25, 56:12, 60:19, 64:21, 64:25,
 11 65:5, 84:14, 91:16, 113:8, 115:2, 129:18, 137:17,
 12 138:15, 147:15, 149:12, 153:2, 153:25, 162:25,
 13 165:18, 175:4, 175:19, 182:7, 187:25, 189:9, 190:24,
 14 195:19.
 15 **old** 47:6, 48:10, 62:11, 68:18, 70:21, 73:22, 83:10,
 16 120:8, 129:22, 151:23, 165:15, 193:21.
 17 **older** 195:16.
 18 **olive** 89:5.
 19 **olives** 89:6.
 20 **Once** 7:4, 14:6, 17:5, 18:17, 21:20, 40:24, 43:22,
 21 43:23, 46:7, 104:20, 119:20, 150:1, 153:6, 158:22.
 22 **One** 2:10, 2:13, 4:21, 9:21, 10:19, 27:14, 29:3, 29:7,
 23 29:9, 29:10, 36:15, 38:24, 40:1, 42:10, 43:3, 43:11,
 24 43:19, 45:3, 45:5, 52:8, 52:14, 52:18, 54:22, 55:14,
 25 56:8, 57:3, 57:16, 62:1, 62:9, 84:19, 85:2, 85:24,
 86:2, 87:13, 90:13, 93:9, 93:11, 94:1, 94:6, 94:25,
 95:24, 96:8, 98:17, 99:17, 101:16, 101:23, 101:25,
 102:5, 105:19, 106:3, 110:8, 110:9, 114:21, 118:3,
 121:17, 122:8, 122:17, 124:23, 128:4, 129:3, 133:16,
 147:4, 150:7, 150:21, 152:7, 152:14, 158:10, 163:4,
 163:5, 164:5, 164:19, 165:25, 184:18, 186:25,
 188:11, 190:2, 192:12, 196:7.
one. 37:23, 39:22, 52:11, 151:5, 152:15, 179:1.
ones 17:15, 42:25, 57:10, 73:4, 76:6, 88:14, 158:1.
ongoing 32:24, 33:15, 101:6.
online 80:19.
open 3:21, 36:6, 78:20, 86:18, 87:12, 87:18, 132:1,
 178:6, 178:7.
opened 131:25.
openings 45:23.
operate 127:24, 172:24.
operated 127:22.
operating 62:10, 130:5.
operation 16:10, 34:19, 43:24, 45:17, 63:2, 94:22.
operations 11:3, 11:4, 172:24.
operators 34:11.
opinion 43:4, 131:8, 136:10, 177:2, 184:6, 185:20.
opinions 46:10, 156:15, 173:11.
opponents 139:9.
opportunity 5:2, 37:14, 80:13, 118:12, 133:11, 139:14,

1 139:20, 140:6, 165:8.
 oppose 96:17, 107:7, 179:9.
 2 **opposed** 46:13, 121:17.
 opposite 155:17.
 3 **opposition** 55:10, 102:21, 103:19.
 optimum 42:21.
 4 **option** 188:12.
 oral 7:7, 119:23.
 5 **order** 4:19, 12:16, 13:6, 16:19, 17:3, 26:23, 98:7,
 126:20, 143:18.
 6 **ordered** 32:21.
 Ordinance 143:24, 144:15, 144:20.
 7 **ore** 9:18, 11:22, 11:23, 14:14, 14:19, 18:11, 62:12.
 ore-bearing 15:13.
 8 **Oregonian** 32:20.
 organic 129:24.
 9 **Origin** 53:21, 82:18, 146:7, 146:9, 189:15, 191:8.
 original 50:18, 50:21, 65:19, 67:14, 72:6, 82:1,
 10 82:18.
 originally 134:16.
 11 **originate** 143:19.
 Oscar 86:8.
 12 **osmosis** 13:7.
 Others 40:21, 43:15, 81:9, 106:10, 132:8, 153:5,
 13 161:22.
 otherwise 163:10, 197:21.
 14 **Otton** 34:17.
 ourselves 55:2, 104:17.
 15 **outcome** 197:21.
 outcrop 22:23, 23:12.
 16 **outfit** 46:21.
 outlet 26:18.
 17 **outline** 11:22.
 outside 12:20, 12:24, 13:4, 13:19, 14:9, 19:11, 39:21,
 18 45:9, 81:3, 83:10, 124:25, 134:22, 134:24, 136:3,
 173:9, 179:19, 184:19, 188:12, 188:15, 188:18,
 19 188:22.
 over-exert 192:22.
 20 **overburden** 22:23, 23:5.
 overcome 22:24.
 21 **overlying** 16:5, 16:21, 35:13, 143:6.
 overpower 165:20.
 22 **oversee** 77:24.
 oversight 42:6.
 23 **Overview** 166:14.
 owe 191:18, 191:19, 192:18.
 24 **Owl** 76:15.
 own 28:14, 46:10, 51:24, 52:15, 53:14, 53:15, 74:4,
 25 74:5, 78:16, 78:25, 98:2, 100:5, 109:21, 109:22,
 112:14, 112:19, 112:22, 150:24, 183:9.

1 **own.** 40:2.
 2 **owned** 56:24, 154:16.
 3 **owners** 39:17.
 4 **owns** 112:17.
 5 **oxidant-charged** 143:22.
 6 **oxidants** 144:2.
 7 **oxygen** 12:16, 14:20.
 8 **Oyape** 104:8, 106:15.
 9 **Oyate** 74:20.
 10 **Oyster** 134:19.
 11 **.**
 12 **.**
 13 **< P >.**
 14 **p.m.** 1:8, 64:20, 116:16, 117:21, 196:14.
 15 **Pacific** 91:25.
 16 **packing** 195:8.
 17 **page** 35:9, 80:20, 80:21, 81:12, 167:15.
 18 **Paha** 51:9.
 19 **paid** 33:20, 50:6, 107:3, 107:4, 107:5, 107:13, 108:17,
 20 109:13, 110:9, 110:10, 120:21, 120:23, 125:6,
 21 147:5.
 22 **pain** 193:7.
 23 **paint** 123:10, 163:22, 164:2.
 24 **painted** 163:22.
 25 **paints** 163:23.
Pamp 55:7, 55:8.
pamphlets 124:23.
pancreatic 70:24.
panel 5:13, 118:16.
paper 35:6, 106:11.
papers 59:16, 77:17, 127:11.
paperwork 61:8, 61:9.
Paragraph 166:18, 167:16.
parasites 138:11.
parents 130:9.
Park 36:14, 36:16, 140:18, 171:22.
parks 170:5.
parliamentary 112:20.
Part 6:6, 42:5, 42:6, 42:8, 45:16, 57:4, 78:10, 81:1,
 83:23, 97:19, 118:25, 139:3, 157:25, 174:12, 175:4.
participated 7:6, 119:22.
particles 142:6, 142:9.
particular 99:25, 160:8, 162:10, 167:5.
parties 197:19.
partly 107:17.
partner 84:1.
Pass 12:6, 60:13, 63:18, 143:21, 171:24, 172:12.
passed 85:13, 86:5, 132:16, 132:20, 169:14.
passion 96:7.
passionate 180:25.

1 **past** 30:12, 53:24, 101:4, 104:16, 128:16.
 2 **patience** 37:15, 106:22.
 3 **pattern** 12:12.
 4 **Pause.** 182:2.
 5 **pay** 30:25, 51:7, 110:17, 112:25.
 6 **paying** 54:15, 112:18.
 7 **payroll** 58:18.
 8 **peace** 57:16.
 9 **Peak** 66:6, 66:14.
 10 **Pederson** 122:3, 122:4, 122:5, 125:23, 125:24, 126:3.
 11 **PENNINGTON** 197:7.
 12 **People** 27:15, 28:19, 29:15, 29:16, 30:10, 31:11,
 13 31:18, 31:21, 36:14, 36:19, 37:20, 38:21, 47:7,
 14 49:24, 52:7, 52:19, 52:21, 53:7, 53:10, 53:13,
 15 53:15, 53:19, 53:24, 54:7, 54:14, 54:17, 54:23,
 16 55:22, 57:21, 58:20, 58:21, 59:1, 59:11, 59:16,
 17 59:20, 60:3, 60:9, 60:12, 60:22, 62:7, 65:19, 67:14,
 18 68:25, 70:17, 71:9, 71:24, 72:4, 72:6, 73:3, 73:10,
 19 73:15, 76:4, 77:4, 77:11, 77:23, 78:15, 79:8, 79:14,
 20 80:17, 81:18, 82:18, 82:21, 83:17, 84:3, 87:1,
 21 88:10, 89:21, 92:16, 92:25, 93:2, 93:11, 93:25,
 22 94:7, 94:17, 94:19, 94:23, 95:9, 95:18, 96:11,
 23 102:10, 105:12, 105:15, 106:12, 106:21, 107:6,
 24 107:10, 107:19, 108:4, 108:6, 108:7, 108:8, 109:6,
 25 109:12, 109:16, 109:20, 110:8, 110:9, 110:11,
 110:17, 111:19, 111:21, 112:1, 112:2, 118:1, 120:16,
 120:22, 121:17, 122:21, 122:25, 123:8, 123:15,
 123:20, 124:2, 126:10, 127:6, 130:17, 130:20, 131:3,
 132:12, 133:16, 135:1, 136:10, 136:15, 136:18,
 136:20, 137:9, 137:16, 138:4, 145:16, 145:20, 146:7,
 147:4, 147:5, 149:14, 149:22, 150:7, 150:18, 151:9,
 151:24, 152:1, 152:3, 152:18, 152:24, 153:4, 153:19,
 153:24, 155:15, 156:9, 156:13, 156:17, 157:5, 158:9,
 161:21, 162:13, 163:1, 178:4, 178:10, 181:2, 181:5,
 181:19, 183:3, 184:18, 186:17, 187:10, 187:11,
 188:18, 189:15, 190:16, 190:18, 190:21, 192:10,
 193:4.
peoples 60:24, 159:2.
Per 8:11, 14:22, 21:14, 21:19, 21:22, 35:3, 98:9,
 99:17, 100:15, 142:9, 142:11, 161:2, 161:4, 161:5.
percent 14:24, 78:21, 124:13, 124:19, 162:5, 175:22,
 184:5.
percentage 14:24.
perennial 141:13.
perfect 27:2, 58:18, 104:20.
perfectly 71:25.
Perhaps 82:16.
perimeter 12:21, 12:25, 14:9, 16:12, 17:20, 18:2.
period 3:21, 27:7, 27:10, 58:23, 119:16, 186:11,
 186:25, 196:8.

1 **Perli** 197:11, 197:25.
 2 **permanently** 98:23, 100:21.
 3 **permeability** 45:24.
 4 **permeable** 143:4.
 5 **permission** 34:11.
 6 **permit** 3:11, 3:13, 3:18, 7:20, 9:3, 9:6, 9:14, 9:25,
 7 10:10, 10:24, 11:5, 11:6, 11:14, 15:3, 17:1, 17:13,
 8 18:17, 19:12, 20:8, 22:1, 24:24, 26:24, 27:21,
 9 31:14, 58:12, 58:15, 62:22, 96:23, 117:12, 117:14,
 10 117:18, 124:24, 127:23, 128:1, 133:17, 155:19,
 11 156:6, 156:24, 183:20.
 12 **PERMITS** 1:3, 3:6, 3:10, 3:20, 5:23, 7:4, 9:1, 9:3,
 13 17:9, 26:23, 28:23, 32:4, 40:23, 79:13, 110:19,
 14 110:20, 110:24, 117:8, 117:11, 117:20, 119:20,
 15 134:5, 139:25, 141:10, 141:14, 155:12, 196:5.
 16 **permitted** 11:9.
 17 **permitting** 42:19, 44:8, 187:8.
 18 **persistently** 105:19.
 19 **person** 46:14, 75:1, 80:24, 83:2, 83:25, 88:12, 94:4,
 20 94:5, 101:23, 102:1, 102:5, 111:12, 122:21, 124:17,
 21 149:4, 149:6, 162:2, 163:3, 176:24, 178:12.
 22 **personal** 30:14, 74:5, 133:1, 184:22.
 23 **Personally** 132:11, 135:12, 185:23.
 24 **perspective** 185:22.
 25 **Peterson** 126:4, 126:5, 129:16.
petition 29:9, 29:18.
phosgene 144:13.
photographer 33:7.
pick 14:14, 37:23, 49:7, 124:23.
picked 193:14.
picking 33:11.
picocuries 161:1, 161:2, 161:4, 161:5.
picture 44:21, 91:2, 106:4.
pictures 124:10, 125:15.
pigs 32:22.
piled 84:18, 176:9.
pin 129:3.
Pine 56:17, 91:11, 139:10, 179:7.
Pipe 54:10, 150:10, 150:11.
pipeline 83:9.
pipelines 182:15.
pipes 43:8, 129:4.
pissed 85:10.
pit 68:18.
place 28:12, 57:14, 62:16, 73:1, 73:6, 73:25, 82:2,
 82:18, 83:15, 86:6, 86:16, 86:17, 104:21, 106:21,
 136:18, 146:24, 164:20.
places 13:5, 36:18, 181:2.
placing 35:11, 35:21.
plagues 106:8.

1 **plaintiff** 56:25.
Plan 11:2, 11:4, 18:21, 18:22, 18:24, 130:2, 144:23.
 2 **planning** 106:9.
plans 42:20.
 3 **plant** 14:17, 70:11, 70:18, 134:19, 134:22, 135:6,
 159:11, 162:14, 177:24.
 4 **plants** 36:11, 61:5, 67:7, 101:4, 136:15, 148:16,
 169:21.
 5 **Please** 4:15, 4:17, 4:25, 5:2, 5:5, 6:17, 28:3, 54:5,
 60:18, 63:11, 91:15, 94:11, 95:17, 117:24, 119:8,
 6 145:13, 147:14, 157:6, 157:15, 157:16, 158:6,
 158:22, 162:24, 178:23, 184:14, 186:1, 195:19,
 7 196:11.
plug 84:21.
 8 **plugged** 17:16, 25:3.
plumbing 142:24.
 9 **PLUME** 56:11, 56:12, 56:16, 60:17, 60:19.
Plunge 36:13.
 10 **plus** 144:12.
plutonium 51:2.
 11 **point** 5:3, 43:5, 66:14, 113:20, 128:16, 130:22,
 174:22.
 12 **point.** 55:16, 116:14, 118:8.
points 39:13, 44:23.
 13 **poison** 36:9, 43:25, 44:1, 102:22, 103:13, 157:15,
 157:16.
 14 **poisoned** 103:15, 174:22, 176:11, 176:14.
poisoning 102:24, 114:13, 176:2.
 15 **poisonous** 64:1, 64:11, 187:2.
poked 84:20.
 16 **police** 52:2.
polite 40:25.
 17 **political** 107:17.
pollutants 134:18.
 18 **pollute** 34:15.
polluted 70:16.
 19 **pollution** 136:9.
pond 64:1.
 20 **ponds** 26:7, 26:16, 26:18, 68:11, 71:6, 125:21.
poor 153:13.
 21 **pop** 63:16.
population 161:21.
 22 **porosity** 45:24.
porous 35:4.
 23 **portion** 8:6, 8:23, 9:14, 98:19.
portions 9:15, 34:15, 96:24, 97:7, 98:7, 98:11,
 24 99:14.
pose 35:13.
 25 **position** 54:12, 112:16.
possibility 4:9.

1 **possible** 15:22, 35:3, 140:1.
 2 **possibly** 16:16, 27:16, 82:11, 175:5.
 3 **post-restoration** 18:21, 18:22.
 4 **potential** 46:3, 83:25, 142:22.
 5 **Potentially** 35:15.
 6 **pour** 41:23.
 7 **poverty** 53:11, 187:11.
 8 **power** 39:9, 39:10, 39:11, 39:15, 70:11, 70:18, 74:7,
 9 88:17, 115:1, 115:2, 115:7, 157:3, 157:4.
 10 **powerful** 193:4.
 11 **Powertech** 3:7, 15:4, 17:16, 18:20, 19:4, 19:17, 21:9,
 12 25:12, 32:4, 40:3, 48:5, 50:6, 57:4, 60:8, 62:16,
 13 98:5, 98:23, 98:25, 117:8, 127:11, 129:21, 131:18,
 14 131:24, 140:2, 141:6, 143:13.
 15 **practices** 42:4.
 16 **prairie** 64:2, 85:20.
 17 **pray** 104:13, 105:19, 170:5, 194:17.
 18 **precedent** 97:18, 97:21.
 19 **precious** 105:25, 137:4, 145:25, 180:23.
 20 **precipitation** 68:22.
 21 **preclude** 39:2, 39:5, 40:10.
 22 **prefer** 110:7.
 23 **preferred** 89:17.
 24 **Preliminary** 78:11, 144:15, 144:19.
 25 **premise** 109:12.
 26 **prepared** 40:4, 40:6, 160:2, 161:7, 165:9.
 27 **prepares** 6:20.
 28 **preparing** 6:4, 118:22, 119:10.
 29 **preschool** 139:4.
 30 **present-day** 53:21.
 31 **presentation** 7:17.
 32 **presentations** 120:15.
 33 **presented** 159:4.
 34 **presenting** 132:21, 159:5.
 35 **preservation** 170:18.
 36 **President** 87:19.
 37 **presiding** 2:7.
 38 **press** 62:13.
 39 **pressure** 22:24, 25:11, 143:7.
 40 **pressurizing** 86:20.
 41 **prestigious** 183:14.
 42 **pretty** 29:19, 30:20, 36:13, 36:15, 43:2, 45:10, 77:3,
 43 77:8, 87:10, 138:18, 160:16, 163:24, 164:12, 164:15,
 44 165:14, 181:10.
 45 **prevent** 39:25.
 46 **Previous** 25:3, 134:12, 138:20, 146:12.
 47 **previously** 121:6.
 48 **price** 54:15, 188:6.
 49 **pride** 152:13.
 50 **priest** 37:17.

1 **primary** 141:25, 142:4.
 2 **printed** 32:20, 106:11.
 3 **prior** 60:23, 183:10.
 4 **prisoner** 56:20.
 5 **pristine** 135:8, 146:24.
 6 **private** 183:14, 187:19.
 7 **privilege** 65:23, 65:25.
 8 **Pro** 148:6, 155:18.
 9 **probably** 20:6, 24:22, 37:25, 41:14, 42:10, 42:21,
 10 50:6, 69:22, 76:16, 84:25, 108:4, 180:11.
 11 **problem** 55:17, 55:25, 86:23, 142:12.
 12 **problems** 32:24, 33:13, 53:20, 92:19, 92:22, 92:23,
 13 141:2.
 14 **proceed** 44:7.
 15 **proceeding** 6:4, 118:22, 139:16, 196:14, 197:15.
 16 **Proceedings** 35:9, 197:12.
 17 **process** 3:14, 10:1, 10:3, 10:8, 10:11, 11:1, 14:12,
 18 15:2, 16:23, 19:25, 26:23, 38:21, 117:2, 117:15,
 19 121:20, 128:24, 131:2, 174:10, 175:4, 175:19.
 20 **processes** 121:18.
 21 **processing** 14:16, 160:23.
 22 **producing** 86:17.
 23 **production** 12:13, 12:18, 14:16, 42:7.
 24 **products** 121:2.
 25 **Professional** 30:7, 41:17, 197:11, 197:27.
professionals 93:5, 95:1, 95:6.
profit 73:16, 109:2.
profiting 171:19.
profits 156:20.
profound 159:1.
program 7:23, 7:24, 7:25, 8:13, 20:19, 96:21, 170:22,
 170:23, 172:20.
programmed 106:11.
project 3:24, 4:4, 28:12, 28:20, 29:9, 29:10, 29:17,
 30:11, 31:6, 31:16, 31:17, 31:19, 38:6, 38:12,
 38:22, 40:16, 40:23, 42:20, 43:11, 55:11, 62:3,
 72:13, 72:14, 73:12, 73:16, 73:21, 74:8, 77:22,
 109:11, 120:14, 121:25, 129:13, 129:23, 129:25,
 131:16, 131:19, 131:23, 132:2, 132:18, 132:23,
 133:2, 133:5, 133:19, 133:23, 134:3, 139:7, 139:15,
 139:21, 139:24, 140:21, 141:1, 141:9, 141:17,
 143:14, 143:21, 144:7, 181:17.
projects 41:19, 42:18.
promise 184:10.
promised 98:23.
promoting 97:3.
pronounce 160:1.
proof 114:14, 114:15, 137:21, 168:24.
propaganda 165:20, 176:22, 176:25, 177:4.
properly 154:7.

1 **properties** 30:21.
 2 **property** 28:18, 30:15, 31:10, 39:16, 39:18, 39:21,
 40:2, 40:14, 40:18, 40:22, 61:20, 139:16, 169:15,
 187:20.
 3 **prophecy** 193:23.
 4 **proposal** 5:15, 5:17, 97:23, 98:23, 118:17, 143:14.
 5 **propose** 26:24, 141:6.
 6 **PROPOSED** 1:4, 4:5, 10:23, 11:5, 11:19, 11:20, 11:25,
 14:5, 14:8, 18:20, 34:25, 42:21, 96:17, 97:14,
 99:14, 131:18, 139:6, 140:21, 170:8.
 7 **proposes** 97:8.
 8 **proposing** 3:16, 9:12, 117:16.
 9 **Propublica** 34:5.
 10 **pros** 148:4.
 11 **protect** 8:1, 53:23, 54:22, 67:19, 75:4, 75:20, 79:1,
 79:10, 79:14, 82:23, 93:2, 94:23, 111:22, 116:6,
 125:9, 126:21, 168:16, 172:18, 177:16, 178:15,
 193:22.
 13 **protected** 46:1.
 14 **protecting** 92:16, 92:24, 94:17, 97:19.
 15 **Protection** 2:6, 2:16, 50:20, 56:14, 57:8, 74:4, 92:13,
 92:15, 94:15, 98:8, 100:6, 100:11, 116:21, 125:8,
 142:10, 158:5, 167:24, 170:20, 178:14, 188:21.
 16 **protective** 20:23, 26:25, 38:13.
 17 **protects** 22:14.
 18 **protesting** 183:24.
 19 **proud** 53:1.
 20 **prove** 122:20, 123:13, 162:7, 163:7.
 21 **proved** 122:24.
 22 **Proven** 20:20, 96:25, 148:25, 163:12.
 23 **provide** 7:11, 15:15, 34:22, 98:24, 119:9, 119:12.
 24 **provided** 62:6, 67:8, 104:10, 195:24.
 25 **providing** 117:4.
Provo 69:18.
Public 1:1, 2:24, 3:21, 6:11, 7:14, 8:6, 8:8, 10:15,
 10:16, 10:25, 26:22, 27:10, 27:14, 27:17, 58:23,
 68:11, 119:4, 135:16, 197:32.
publicly 100:4.
published 34:17, 35:11.
pull 28:9, 41:24, 115:6.
pulled 14:13, 49:8.
pulling 160:11, 160:19, 160:24.
pump 15:16, 15:20, 15:23, 16:6, 18:25, 20:13, 62:19.
pumping 14:21, 16:18, 85:11, 86:10.
punch 58:13.
punctured 143:12.
purchases 136:4.
pure 87:8, 184:5.
purify 146:22.
purpose 5:19, 8:15, 9:18, 167:14.

1 **purposely** 171:20.
purposes 137:13, 167:19.
 2 **pushed** 23:6, 105:13, 176:10, 188:10.
Put 19:5, 37:12, 41:23, 45:6, 47:22, 62:24, 77:21,
 3 80:8, 83:13, 85:23, 90:11, 112:6, 123:4, 125:5,
 4 126:24, 135:23, 135:24, 136:2, 168:22, 180:1,
 181:2.
Putnam 133:8, 133:12, 134:8.
 5 **puts** 169:24.
putting 26:15.
 6 **pyramid** 88:21.
 7 .
 8 < Q >.
qualified 33:23.
Quality 13:2, 23:19, 23:24, 23:25, 25:22, 134:2,
 9 141:24, 141:25, 142:4, 167:17, 167:19, 167:24,
 168:11, 168:16.
 10 **quantity** 8:8.
Question 15:9, 108:17, 188:9.
 11 **questioning** 107:6, 121:16.
questions 2:12, 5:13, 5:24, 71:11, 94:19, 118:16,
 12 118:18, 167:6.
quick 69:17.
 13 **quickly** 13:16, 26:6, 48:4, 49:6, 133:3, 140:1.
Quit 86:15, 131:5.
 14 **quite** 70:8, 110:12, 111:15, 123:3.
quote 34:1, 34:7, 34:18, 35:13, 35:15, 39:1, 166:15.
 15 .
 16 < R >.
race 184:7, 190:6, 190:7, 191:10, 191:13.
 17 **racial** 173:13, 173:15, 173:16, 181:5.
racism 73:9, 156:4, 156:7, 182:21, 187:9.
 18 **radiation** 13:17, 13:18, 75:8, 75:14, 92:12, 92:15,
 92:16, 92:25, 93:2, 93:10, 93:13, 93:15, 94:14,
 19 94:18, 94:20, 94:24, 159:21, 160:5, 160:10, 161:10,
 161:12, 161:15, 162:4, 162:19, 162:20, 163:8.
 20 **radioactive** 9:9, 13:14, 22:2, 26:8, 26:11, 26:20,
 47:8, 47:18, 47:19, 47:21, 61:2, 63:17, 101:2,
 21 160:12, 160:21.
radioactivity 70:25.
 22 **radionuclide** 160:22.
radionuclides 142:6, 159:10, 159:12, 159:15, 159:19,
 23 161:17, 162:21, 163:9.
Radium 13:10, 13:13, 13:15, 26:8, 26:11, 47:10, 91:7.
 24 **radium-226** 159:16, 160:17.
radon 13:10, 13:13, 13:16, 13:20, 13:22, 13:23, 68:19,
 25 91:7, 102:25, 103:2, 159:16, 160:17.
railroad 81:23.

1 **Rails-to-trails** 80:25.
 2 **rain** 71:7, 125:18, 125:19.
 3 **rains** 68:22, 176:10.
 4 **raise** 62:4, 121:23, 132:13, 181:15.
 5 **raised** 30:17, 61:21, 61:23, 63:11, 65:9, 84:23,
 6 180:18, 186:3, 194:7.
 7 **raises** 86:21, 188:9.
 8 **raising** 46:19.
 9 **Ramada** 29:5.
 10 **ran** 86:14, 89:16.
 11 **ranch** 28:1, 28:7, 28:11, 30:9, 30:17, 30:23, 34:11,
 12 38:22, 84:23, 92:8, 120:9, 130:3, 130:10, 133:14,
 13 133:24, 139:2, 139:6, 139:21, 139:23, 140:6, 140:7.
 14 **rancher** 120:10, 127:9, 129:24, 139:17.
 15 **Ranchers** 36:8, 38:7, 46:21, 120:11.
 16 **ranches** 130:16.
 17 **ranching** 130:1.
 18 **Range** 68:14, 84:24, 130:2.
 19 **rant** 108:6.
 20 **Rapid** 3:25, 29:5, 33:6, 49:25, 139:9, 145:18, 172:16,
 21 197:30.
 22 **raping** 125:11.
 23 **rare** 75:12, 184:22.
 24 **rate** 14:22.
 25 **rates** 53:10, 75:24, 158:3.
rather 107:17.
RCRA 20:15, 20:19.
Rd. 197:29.
reach 2:13, 48:8, 186:17.
reaction 162:3.
read 46:9, 47:3, 51:17, 51:21, 80:14, 104:8, 117:5,
 152:20.
reading 50:4, 50:23, 135:19, 149:12.
ready 64:4, 145:8.
reaffirm 78:13.
real 38:20, 67:24, 84:2, 161:1, 169:12, 169:13.
reality 110:7, 139:11, 169:7, 172:17.
realize 89:19, 149:3, 173:20.
realizing 54:21.
Really 36:10, 36:25, 37:4, 81:9, 82:12, 95:2, 101:18,
 102:21, 107:2, 108:4, 108:6, 108:23, 108:24, 111:20,
 112:15, 114:6, 124:5, 137:10, 153:14, 155:16,
 155:18, 155:19, 164:7, 166:5, 171:15, 173:9, 174:1,
 175:9, 176:2, 176:4, 178:11, 178:13, 178:15, 183:2,
 184:8, 194:23, 195:22.
reason 67:5, 130:8, 134:16, 135:7, 164:5.
Reasonably 48:7, 48:11, 48:13, 48:16.
reasons 65:13.
rebuild 55:3, 151:22.
rebuilding 150:15, 151:3, 151:12.

1 **receive** 5:19.
 2 **received** 5:21.
 3 **Recent** 35:6, 35:10, 157:23.
 4 **recent-** 134:21.
 5 **recently** 33:6, 102:18.
 6 **recess** 64:19, 116:15.
 7 **recharge** 34:25, 45:9.
 8 **Recognize** 79:24, 155:11, 156:21, 179:14.
 9 **recognized** 167:9, 167:19.
 10 **recognizing** 155:13, 155:14.
 11 **record** 6:6, 24:12, 27:19, 34:23, 63:13, 113:14,
 12 114:16, 116:14, 118:25, 121:25, 132:24, 171:6,
 13 197:15.
 14 **recorded** 98:3.
 15 **recording** 6:1, 118:19.
 16 **records** 112:2.
 17 **recovered** 9:19.
 18 **recovering** 15:5, 42:23.
 19 **recovery** 3:8, 3:12, 3:14, 8:17, 9:4, 16:18, 16:19,
 20 18:16, 63:15, 96:19, 100:14, 100:18, 117:9, 117:13,
 21 117:15, 125:3, 170:23.
 22 **recycled** 14:19, 14:23.
 23 **Red** 4:23, 14:2, 24:7, 68:15, 113:24, 118:4, 189:17,
 24 191:9, 192:6, 193:21, 195:1.
 25 **reduced** 197:13.
References 144:14.
reflect 38:16.
refuge 194:5.
refuse 90:17.
regarding 140:25.
region 139:13.
REGIONAL 2:1, 2:4, 27:22, 28:2, 29:24, 32:5, 35:25,
 37:8, 41:1, 44:2, 44:13, 48:22, 54:1, 54:5, 55:5,
 56:10, 60:16, 61:14, 63:4, 64:15, 64:21, 69:13,
 71:16, 71:19, 74:13, 76:9, 78:5, 80:4, 80:7, 84:7,
 84:10, 87:24, 91:13, 92:3, 94:11, 95:12, 95:16,
 101:8, 101:11, 102:15, 103:22, 106:17, 111:2,
 115:20, 116:9, 116:17, 116:20, 122:1, 125:22, 126:2,
 129:15, 131:10, 133:7, 134:7, 138:24, 140:9, 140:14,
 144:25, 145:4, 145:11, 147:12, 147:16, 147:20,
 149:8, 152:25, 153:22, 154:12, 154:19, 154:23,
 158:19, 158:24, 162:22, 163:15, 165:4, 165:22,
 168:17, 173:1, 173:3, 178:18, 179:2, 180:4, 181:23,
 184:12, 184:14, 185:25, 187:17, 187:21, 187:23,
 188:2, 189:3, 189:10, 195:21.
Registered 41:16, 197:11, 197:27.
registration 2:21, 4:14, 6:18, 7:3, 117:23, 119:9.
regs 27:6, 43:1.
regulate 10:18, 129:12, 166:19, 171:1.
regulates 10:24.

1 **regulates.** 34:3.
regulation 20:25, 42:16.
 2 **regulations** 8:5, 8:22, 18:4, 27:1, 27:13, 71:23,
 71:24, 96:22.
 3 **regulators** 33:17, 93:4.
Regulatory 10:20, 18:19, 33:3, 33:22, 38:25, 100:23.
 4 **reiterate** 73:19.
reiterating 170:21.
 5 **related** 3:8, 117:9, 167:7, 197:19.
relation 3:23, 52:18.
 6 **relationships** 190:14.
relative 32:10, 108:14, 142:5.
 7 **relatives** 49:19, 52:9, 67:10, 67:22, 91:22, 114:7,
 120:10, 137:19, 158:10, 174:23, 190:13, 191:4,
 8 192:12, 192:25, 193:5, 194:21.
release 143:24, 144:7.
 9 **released** 143:9.
relevant 189:7, 189:12.
 10 **reliability** 189:1.
relief 142:13, 187:15.
 11 **religion** 82:10.
religious 66:1, 66:24, 73:5, 73:24, 170:1, 170:3.
 12 **reluctance** 32:23.
rely 156:14.
 13 **relying** 20:20.
Rem 160:25, 161:1, 161:10, 161:15, 161:17.
 14 **remain** 81:7.
remaining 41:24.
 15 **remains** 47:19.
remarks 116:24, 116:25, 144:1.
 16 **Remedial** 144:23.
remediation 19:22, 34:18, 141:3.
 17 **Remember** 29:4, 38:2, 71:22, 74:11, 149:21, 170:10,
 172:22, 177:15, 191:17, 195:19.
 18 **remembering** 52:14, 53:1.
remind 75:5, 81:10.
 19 **reminds** 74:9.
remove 13:11, 75:17, 105:20.
 20 **removed** 14:17, 23:20, 26:13, 99:21.
removing 103:11.
 21 **renew** 57:1.
renewable 158:15, 158:16.
 22 **repeat** 44:19, 96:16, 166:25.
repeating 96:12.
 23 **replugged** 17:22.
Report 32:19, 142:2, 144:19.
 24 **Reporter** 6:3, 6:20, 28:4, 28:8, 118:21, 184:15,
 197:12, 197:27.
 25 **Reporting** 197:28.
represent 19:3, 88:24.

1 **representative** 129:10.
 2 **represented** 52:19, 54:12, 54:13.
 3 **representing** 104:17, 107:25.
 4 **represents** 18:10, 88:22.
 5 **request** 40:21, 110:19, 110:21, 134:4.
 6 **requested** 27:14.
 7 **requesting** 10:13, 110:24.
 8 **require** 22:1, 27:6, 27:13.
 9 **required** 15:6, 18:7, 47:17, 141:15.
 10 **requirements** 7:20, 17:6, 17:7, 17:13, 20:3, 20:24,
 11 21:4, 24:24, 26:24, 40:4.
 12 **requires** 17:1, 18:17, 19:12, 100:10.
 13 **requiring** 20:23.
 14 **Research** 37:2, 75:7, 135:15, 135:18, 166:12.
 15 **Reservation** 66:23, 91:8, 155:4, 167:12, 167:14,
 16 167:18, 171:15, 171:25, 172:11, 179:7, 190:23,
 17 190:25.
 18 **reservations** 49:25, 167:8, 171:17, 171:24, 172:10.
 19 **Reserved** 167:5, 167:8, 167:20, 167:21, 167:23, 168:3.
 20 **reserves** 167:12, 167:13.
 21 **residences** 98:14.
 22 **resident** 98:24, 99:3, 99:6, 133:18, 175:2, 186:12,
 23 186:22.
 24 **residents** 97:6, 98:18, 174:20.
 25 **residing** 110:5, 134:11.
resist 33:11, 74:10.
resistance 108:9, 108:10, 110:15.
resisted 89:15.
resolution 132:17, 132:22, 133:21, 133:22.
resource 194:15.
Resources 10:22, 45:14, 50:25, 51:5, 104:9, 106:1,
 120:25, 121:5, 142:21, 156:21, 166:20, 179:16,
 186:25.
Respect 52:7, 53:13, 55:3, 79:24, 109:20, 149:23,
 150:1, 158:21, 174:8, 181:11, 191:7.
respectful 4:25, 67:1.
respectfully 78:16.
respecting 158:7.
respond 5:17, 5:20, 27:20, 184:17.
responded 10:6.
responders 63:20.
response 16:4, 53:25, 110:12, 142:17, 159:7.
responsibilities 132:15.
responsible 37:18, 42:3, 42:5.
rest 120:23, 157:13.
restful 151:24.
restoration 16:23, 18:18, 19:8.
restored 16:24, 128:19, 137:24.
restoring 127:21.
restricted 143:13.

1 **result** 47:11, 142:7, 161:19, 161:20.
resulted 100:15.
 2 **resulting** 100:18, 125:2.
results 13:15, 104:19.
 3 **retained** 57:19.
retired 92:11, 92:12, 94:16.
 4 **return** 5:5, 116:12, 118:9, 132:13, 173:12.
returned 34:20.
 5 **returns** 42:7.
revamped 34:2.
 6 **reveal** 53:23.
reverse 13:7.
 7 **Review** 6:12, 10:13, 10:25, 26:22, 27:8, 27:9, 119:5,
 166:15, 167:4, 196:2.
 8 **reviewed** 31:8, 31:14, 40:9, 188:19.
reviewing 44:24.
 9 **revive** 174:3.
rid 103:4, 110:22, 147:7.
 10 **ridden** 80:25.
ride 151:25.
 11 **rides** 152:3, 152:6.
Ridge 56:17, 91:11, 139:10, 179:7.
 12 **ridiculous** 55:20.
Rights 28:15, 39:16, 40:18, 60:22, 72:16, 72:17,
 13 83:17, 129:11, 136:4, 153:19, 166:13, 166:23, 167:3,
 167:5, 167:8, 167:21, 167:23, 168:11, 168:16,
 14 172:10, 187:22.
rigorous 17:7, 21:5.
 15 **ring** 14:10, 17:20, 18:3.
rings 34:22, 85:17.
 16 **riot** 173:14.
rise 16:15, 55:4, 73:9.
 17 **risk** 13:23, 35:13, 68:23, 73:17, 114:17, 114:19,
 134:2, 142:7, 159:21, 159:22, 159:23, 159:24,
 18 161:23, 162:5.
risks 130:23.
 19 **River** 11:16, 12:2, 12:6, 14:4, 22:16, 44:10, 68:13,
 68:16, 70:12, 70:16, 78:9, 87:7, 92:9, 92:10, 141:7,
 20 141:20, 141:21, 141:22, 141:23, 155:4, 155:6,
 156:12, 156:13, 169:1, 174:22, 174:23, 176:3, 176:9,
 21 176:11, 176:12, 176:15, 178:4, 186:15, 190:18,
 190:20, 190:23, 191:1, 191:25, 192:1, 192:2, 192:8,
 22 192:9.
rivers 190:17, 191:3.
 23 **Road** 29:7, 55:22, 111:17, 139:2, 186:20, 193:12.
roads 64:4.
 24 **ROBERT** 111:3, 111:4, 111:9, 115:22, 173:3, 173:5.
Rock 41:15, 49:4, 66:8, 73:8, 77:11, 78:10, 83:4,
 25 109:18, 111:10.
rocks 35:4, 88:23.

1 **rode** 81:1.
roller 188:6.
 2 **rolling** 188:7.
room 157:5.
 3 **roommate** 32:14.
rooms 106:10.
 4 **roots** 105:7.
Rosebud 110:4, 122:7.
 5 **round** 12:8.
rounds 78:11.
 6 **ROWAN** 145:6, 145:9.
Rowland 178:25, 179:3, 179:4, 179:5.
 7 **rubber** 41:23.
RUBE 84:11, 84:13.
 8 **rudeness** 181:12.
ruin 164:20.
 9 **ruined** 85:12.
ruining 139:23.
 10 **rule** 134:4, 154:21.
ruled 167:22.
 11 **run** 43:13, 86:13, 137:21, 191:14, 191:15.
run-offs 192:5.
 12 **running** 12:2, 48:1, 155:5, 191:16.
runs 155:6, 186:20.
 13 **rural** 63:20.
Rushmore 197:29.
 14 **rust** 143:23.
 15 .
 16 .
 < S >.
 16 **S.** 80:14, 81:6.
Sacred 57:8, 66:11, 67:20, 81:7, 84:4, 91:21, 111:18,
 17 111:22, 150:9, 150:11, 170:12, 170:13, 170:14,
 170:16, 171:19, 177:8, 177:12, 191:15.
 18 **sad** 181:4.
saddens 181:1.
 19 **Safe** 7:25, 28:22, 34:7, 43:6, 43:10, 47:25, 63:1,
 71:23, 72:4, 75:6, 91:20, 96:21, 114:13, 115:8,
 20 121:8, 128:23, 131:3, 136:19, 141:10, 146:16, 175:5,
 175:20, 175:21, 175:23.
 21 **safer** 47:25, 180:1.
safest 121:18.
 22 **safety** 33:23, 42:22.
sage 49:8, 49:10, 49:14, 51:17.
 23 **sake** 74:2, 74:5.
Sakowin 74:22, 81:9.
 24 **sale** 147:19, 194:8.
salinity 168:5.
 25 **Salish** 168:8.
Salt 32:25, 138:6, 138:7, 138:9.

1 **salts** 87:6.
 2 **sample** 21:16, 93:19.
 3 **samples.** 35:18.
 4 **sanctions** 141:9.
 5 **Sapa** 49:2, 51:9, 57:22, 155:1.
 6 **Sarah** 126:4, 126:5.
 7 **sarin** 144:12.
 8 **sat** 78:11, 171:8.
 9 **Satanic** 88:24.
 10 **save** 111:7, 163:20.
 11 **saw** 15:8, 73:8, 106:25.
 12 **saying** 28:22, 49:6, 60:10, 83:24, 87:18, 136:6,
 13 137:17, 139:17, 149:6, 175:19, 195:6.
 14 **says** 45:1, 46:11, 47:4, 48:5, 48:6, 48:8, 60:22,
 15 66:18, 81:15, 84:1, 87:20, 107:22, 114:14, 115:16,
 16 128:18, 128:20, 152:6, 166:18, 168:23.
 17 **scale** 142:20, 142:21.
 18 **scalps** 147:5, 147:6.
 19 **scared** 128:22.
 20 **scares** 86:18.
 21 **scary** 71:13, 157:2.
 22 **scheduled** 27:16.
 23 **School** 36:4, 41:7, 89:13, 89:16, 120:5, 121:11, 122:7,
 24 130:19, 135:16, 180:10, 180:14, 187:15.
 25 **schools** 131:21, 183:14, 183:15.
Schumacher 69:15, 69:16, 69:18, 71:17.
Science 28:21, 35:9, 58:18, 61:10, 72:2, 107:20,
 107:21, 107:22, 107:24, 114:14, 120:18, 121:15,
 132:6, 134:5.
scientific 43:5, 43:16, 77:16, 124:6, 146:20, 169:3,
 181:20.
scientist 127:17.
scientists 40:8, 49:24, 50:9, 50:19, 58:24, 122:16,
 123:13, 146:20.
scol- 159:25.
Scotland 82:3.
SD 1:12, 197:30.
SDWA 141:11.
SEA 145:7, 145:9.
seal 99:1.
sealed 99:4.
Search 144:19.
searching 77:20.
seats 64:23, 116:19.
second 9:2, 9:6, 9:23, 31:5, 39:7, 50:11, 54:8,
 97:19.
secondary 45:24, 141:25.
seconds 122:24.
Section 141:14.
securing 151:12.

1 **sediment** 71:5, 91:4.
 2 **seeing** 12:19, 108:1, 134:18, 136:11.
 3 **seek** 167:23.
 4 **seem** 135:19, 138:15.
 5 **seemed** 153:8.
 6 **seems** 136:1.
 7 **seen** 42:11, 42:16, 42:18, 42:22, 71:13, 88:20, 93:7,
 8 103:14, 125:14, 135:2, 135:5, 136:8, 136:24, 136:25,
 9 137:2, 138:6, 138:16.
 10 **sees** 33:24.
 11 **SEIS** 140:23.
 12 **seizing** 40:2.
 13 **selenium** 87:6.
 14 **self-destruction** 105:4.
 15 **selfish** 185:11.
 16 **sell** 187:16.
 17 **semester** 122:8.
 18 **send** 106:10, 150:9, 152:2.
 19 **sense** 55:15, 103:4, 103:6, 103:20, 109:17, 148:4,
 20 148:5, 148:17, 149:1, 149:3.
 21 **sent** 10:5, 90:18, 125:16, 134:13, 138:19, 171:23.
 22 **Sentinel** 34:4.
 23 **Separate** 25:25, 166:24, 166:25.
 24 **series** 13:15.
 25 **seriously** 110:25, 132:15, 196:1.
serve 99:15.
Service 166:13.
service-oriented 132:9.
set 26:24, 84:17, 85:6, 97:18, 97:21, 112:23, 125:9.
settlers 109:21.
settles 26:17, 64:2.
settling 26:16.
Seven 10:7, 39:12, 74:22.
several 17:14, 30:12, 43:20, 89:16, 92:13, 92:14,
 92:25, 182:5.
severe 98:25.
severed 99:4.
sexual 83:22, 83:25.
shake 36:22.
shall 104:25.
shallow 86:3, 86:22.
share 61:8, 61:9, 62:24, 139:12, 150:11, 166:1,
 173:17.
shared 54:8, 166:2.
sharing 193:6, 193:7.
Shaw 131:12, 131:13, 131:14.
Shawl 155:2.
Shea 2:18, 4:3, 7:10, 7:13, 37:13, 98:4, 99:17.
sheep 70:5, 70:6.
sheet 41:23.

1 **shell** 49:10.
shield 89:6.
 2 **shipped** 39:20, 95:25, 96:8.
Shirley 42:14.
 3 **Shirt** 68:15, 192:6, 195:1.
short 4:9, 52:16, 53:5.
 4 **shortly** 188:14.
shouldn't 39:16, 83:16, 157:8, 157:9, 157:10, 164:5.
 5 **show** 11:21, 13:9, 17:9, 17:16, 24:18, 88:19, 195:14.
showed 21:17, 35:11, 35:18, 51:13, 76:20, 77:1.
 6 **shower** 13:13.
showing 35:6, 155:22, 156:1, 193:17.
 7 **shown** 12:7, 23:22, 24:7, 25:3, 142:8, 192:25.
shows 11:12, 15:23, 22:5, 24:6, 45:18, 118:3.
 8 **shut** 61:19, 61:20, 74:8.
Sicangu 110:4.
 9 **sick** 68:7, 146:15.
side 56:19, 89:1, 89:4, 89:5, 134:4, 155:17, 185:19,
 10 194:1.
sides 111:11, 111:13.
 11 **SIDS** 91:10.
siege 177:15.
 12 **sign** 4:23, 29:11, 66:18, 80:18, 101:17, 101:19, 118:4,
 168:22, 178:24, 178:25.
 13 **signal** 4:20.
signed 29:9, 103:25, 132:20, 133:22, 178:20, 178:24.
 14 **signing** 127:11.
Sila 76:15.
 15 **silent** 61:5, 185:16, 191:19, 192:18.
similar 26:5.
 16 **simple** 63:16, 159:11.
Simply 38:20, 47:14, 54:23, 99:21.
 17 **sincere** 30:11, 31:19.
sing 52:12, 150:16, 150:17, 152:1, 152:2, 157:18.
 18 **Singing** 145:10.
single 158:9, 182:15, 189:21, 190:11, 195:23.
 19 **sink** 148:8, 190:24.
Sioux 49:4, 51:18, 51:25, 52:2, 52:6, 53:4, 61:1,
 20 63:10, 70:12, 148:3, 155:4, 186:3, 187:6.
Sisay 3:1.
 21 **Sisseton** 74:19, 76:3.
sisters 104:22, 130:10.
 22 **sit** 37:16, 55:12, 86:18, 174:18.
site 10:19, 10:21, 10:24, 12:3, 66:11, 69:12, 80:23,
 23 96:19, 129:25, 131:19, 136:17, 139:7, 162:13, 163:2,
 163:4, 163:6, 170:8, 172:14, 177:8.
 24 **site-specific** 40:7.
sites 91:21, 111:18, 111:22, 135:22, 178:8.
 25 **siting** 42:5.
Sitting 2:14, 6:3, 10:16, 51:19, 51:20, 52:1, 52:3,

1 52:17, 53:17, 53:18, 54:16, 88:25, 118:21, 121:19,
 149:21, 150:4, 150:19, 151:20, 151:25, 152:5, 152:8,
 2 152:17, 171:16, 179:23.
 situation 174:6.
 3 **situations** 18:6.
 six 8:14.
 4 **sixes** 90:10.
 skill 151:10.
 5 **skin** 13:18, 70:7, 90:12, 90:17, 123:6.
 skip 22:18, 111:6, 167:15.
 6 **sky** 122:11.
 skyrocket 158:3.
 7 **skyrocketed** 162:14.
 slaughtered 66:10.
 8 **slaves** 156:20.
 slept 68:19.
 9 **slew** 43:3.
 slide 12:10, 12:22, 15:25, 22:25, 24:6, 24:23, 25:4,
 10 26:21.
 Slim 90:23.
 11 **slower** 114:23.
 slowly 113:13, 142:16, 142:17.
 12 **sludge** 159:13, 161:3, 162:9, 162:11.
 slurs 181:5.
 13 **small** 28:1, 28:7, 28:10, 92:8, 132:4, 161:25, 184:4.
 small-town 182:17.
 14 **smallpox** 147:6, 147:7, 169:10.
 smiles 147:25, 166:1.
 15 **SMITH** 39:23, 40:12, 154:24, 154:25, 158:19, 158:21.
 Smithwick 169:20.
 16 **snake** 63:14.
 sneer 110:10.
 17 **sneering** 107:15.
 Snow 171:10, 194:24.
 18 **social** 182:21, 182:22, 182:24.
 society 40:1.
 19 **soda** 63:16.
 Soft 41:15, 70:25, 71:2.
 20 **soil** 38:9, 38:10, 85:20, 161:3.
 soils 63:22.
 21 **solar** 114:24, 114:25.
 sold 46:22, 51:6, 86:6, 105:16.
 22 **solid** 47:20.
 solids 8:12, 21:14, 21:21, 23:11.
 23 **solution** 14:18, 41:25, 42:23, 47:10, 161:5, 164:24.
 solutions 43:9, 45:23, 63:16.
 24 **soman** 144:12.
 Somebody 36:23, 81:21, 83:1, 127:8, 158:3, 188:23.
 25 **someday** 59:8, 90:11.
 someplace 135:24.

1 **somewhere** 176:9.
 2 **son** 153:13, 157:16.
 3 **song** 150:16, 150:17, 152:2, 157:18.
 4 **soon** 44:9, 87:10, 90:19, 101:15, 106:6, 128:5.
 5 **SOPHIA** 48:24, 48:25, 49:2, 54:3, 54:7, 149:9, 149:10,
 6 153:2, 153:18, 153:25, 154:14, 154:21.
 7 **Sorry** 15:24, 28:8, 30:3, 80:7, 82:21, 84:11, 101:22,
 8 150:2, 153:13, 181:7, 181:13, 184:13, 187:18.
 9 **sort** 19:22, 83:5, 102:4, 160:6, 177:25.
 10 **sorts** 95:18.
 11 **sought** 65:4.
 12 **sought-after** 69:7.
 13 **souls** 73:17.
 14 **sound** 37:13, 101:23.
 15 **source** 8:4, 8:20, 19:11, 19:14, 19:23, 21:12, 21:23,
 16 24:4, 39:11, 39:15, 47:3, 97:9, 97:10, 97:11, 97:15,
 17 97:21, 98:2, 99:15, 100:10, 100:19, 100:20, 101:6,
 18 143:16, 185:3, 187:2.
 19 **sources** 8:2, 17:11, 46:3, 101:3, 143:4, 159:21.
 20 **SOUTH** 3:9, 10:21, 11:15, 12:3, 30:8, 31:1, 32:9, 33:7,
 21 35:8, 41:6, 42:11, 56:18, 65:7, 69:19, 69:21, 70:9,
 22 70:17, 74:20, 80:21, 81:18, 90:14, 90:21, 96:20,
 23 99:6, 117:10, 124:5, 127:3, 131:15, 134:12, 140:22,
 24 141:5, 141:22, 143:17, 144:6, 144:17, 144:21,
 25 168:21, 179:6, 182:16, 183:22, 185:7, 185:14,
 189:13, 197:5.
Southern 142:1.
sovereignty 79:24.
Spanish 169:12.
spanning 187:4.
speaker 27:24, 64:24, 104:4, 120:3.
speakers 4:12, 117:22.
Speaking 48:25, 61:13, 74:16, 76:12, 78:7, 80:3, 88:2,
 92:2, 95:19, 95:21, 104:5, 106:16, 117:2, 152:23,
 155:3, 179:17.
special 32:19.
Specialist 2:24, 3:3.
specialists 58:17.
specific 97:17.
Specifically 167:25.
speeches 55:13.
spelled 160:1.
spend 148:21.
spent 32:25, 122:15, 168:7.
spew 55:13.
spill 183:23, 187:2.
spills 64:3, 121:7, 135:5.
Spink 183:23.
Spirit 52:9, 104:13, 105:1, 105:17, 150:8, 150:20,
 151:20, 152:3, 152:17.

1 **Spiritual** 89:19, 89:23, 105:7, 105:8, 105:21, 195:15.
spirituality 169:6.
 2 **spoke** 44:18, 49:9, 50:5, 50:8, 55:9, 96:11, 108:14,
 145:17, 154:25.
 3 **spoken** 118:12, 159:3, 178:21, 180:6, 182:1, 182:4.
spots 191:23.
 4 **spray** 63:25, 68:12.
spread 105:23, 106:8, 138:2.
 5 **spreading** 75:10.
Spring 142:15, 142:19, 143:1, 192:5.
 6 **Springs** 4:2, 23:13, 23:17, 23:19, 24:8, 26:2, 36:4,
 39:19, 46:4, 69:4, 87:22, 124:22, 134:12, 139:10,
 7 142:13, 142:16, 142:20, 146:5, 169:4.
Squaw 186:20.
 8 **SS** 197:6.
St. 1:10, 32:15.
 9 **stacks** 58:16, 148:21.
staff 2:8, 6:17, 119:8.
 10 **stages** 182:18.
stagnant 104:14.
 11 **stake** 139:11, 183:5, 183:6.
stakeholder 38:23, 66:21.
 12 **stakeholders** 38:21, 65:20, 66:4, 67:25.
stand 57:14, 57:20, 59:8, 67:1, 67:2, 78:19, 79:12,
 13 79:13, 96:16, 105:14, 106:24, 152:9, 168:25, 185:16,
 190:15, 192:24.
 14 **standard** 48:6.
standards 9:10, 22:3, 26:20, 142:5.
 15 **Standing** 49:4, 54:21, 60:10, 61:5, 66:7, 66:8, 73:8,
 77:10, 78:10, 83:4, 89:22, 105:15, 109:18, 111:10,
 16 114:18, 120:21, 157:17, 193:9, 195:13.
Stands 64:24, 64:25, 65:6, 69:14, 168:19, 168:20,
 17 173:2, 188:4, 189:5, 189:9, 189:11, 189:13.
Star 59:13.
 18 **Starr** 88:1, 88:2, 88:5, 91:13, 91:16, 92:4.
stars 89:9.
 19 **Start** 15:5, 18:20, 28:5, 41:5, 43:13, 49:6, 50:3,
 50:15, 57:1, 64:18, 64:25, 86:20, 93:24, 125:17,
 20 127:1, 155:13, 158:7, 158:16, 163:25, 188:18.
started 2:3, 27:23, 41:9, 64:22, 67:16, 82:7, 82:10,
 21 85:10, 85:21, 85:22, 86:1, 89:20, 116:18, 120:2,
 126:6, 131:6, 133:6, 162:10, 162:16, 163:1.
 22 **Starting** 24:17, 166:17.
starts 16:15, 81:20.
 23 **STATE** 4:17, 24:12, 29:1, 31:1, 41:18, 43:1, 80:21,
 81:12, 81:13, 81:16, 81:17, 95:24, 100:12, 117:24,
 24 129:12, 139:13, 140:18, 141:21, 162:16, 166:21,
 166:24, 167:1, 169:5, 170:18, 171:1, 184:19, 184:20,
 25 185:6, 186:1, 186:5, 197:5.
stated 33:25.

1 **Statement** 39:4, 40:6, 40:7, 47:9, 47:14, 140:23.
 statements 91:18.
 2 **States** 34:19, 47:12, 49:25, 56:15, 73:20, 92:14,
 109:3, 146:6, 166:20, 167:10, 168:1, 174:5.
 3 **statistical** 20:16.
 statistically 161:24.
 4 **statistics** 72:12, 155:21.
 status 11:3, 56:21, 98:6, 98:21, 100:19, 191:5.
 5 **stay** 89:17, 118:7, 132:12.
 staying 96:1.
 6 **Ste** 197:29.
 steak 146:8.
 7 **steal** 50:24, 172:2.
 stealing 179:15.
 8 **Stein** 71:20, 71:21, 72:2, 74:14.
 stenographically 197:13.
 9 **step** 43:18, 83:16.
 stewards 120:11.
 10 **stinking** 188:24.
 stir 108:22.
 11 **stochastic** 160:4.
 stockpiling 162:16, 163:1.
 12 **stole** 83:18, 172:9, 179:10, 194:11.
 stolen 51:5, 66:22, 145:19, 156:21, 179:10.
 13 **stomped** 106:2.
 stood 77:11, 77:12, 79:19, 79:20, 79:21, 183:23.
 14 **Stop** 4:23, 101:5, 104:16, 109:14, 118:4, 131:5,
 149:17, 179:13, 179:14, 179:15, 185:4, 193:25.
 15 **stopped** 149:12, 162:17, 185:8.
 storage 26:7, 35:19, 144:3.
 16 **stories** 82:23, 83:5, 83:14, 193:7.
 storing 162:10, 188:13.
 17 **storm** 127:5.
 story 65:3, 82:2, 112:21, 189:15, 191:8, 192:16.
 18 **Straight** 176:23, 176:24.
 strata 143:4, 143:7, 143:8, 143:11.
 19 **strategy** 20:13, 20:18.
 straying 5:4, 118:8.
 20 **strength** 152:11, 157:20.
 strike 172:5.
 21 **stringent** 20:23.
 strip 62:14, 189:18.
 22 **stripes** 88:25, 89:7.
 strong 131:8, 133:1.
 23 **stronger** 122:25.
 strongly 63:2, 82:22, 107:8, 108:25, 131:18.
 24 **student** 36:4.
 students 130:20, 182:13, 183:16.
 25 **studied** 93:19, 122:16.
 studies 68:21, 165:21, 182:10.

1 **study** 34:17, 44:25, 46:8, 61:9.
Study. 144:24.
 2 **stuff** 85:11, 87:8, 87:11, 107:16, 122:16, 122:19,
 124:17, 129:6, 138:20, 164:9, 174:12.
 3 **stupidity** 53:17.
Sturgis 84:23.
 4 **subject** 133:3.
submit 6:25, 119:15, 119:18, 196:12.
 5 **submitted** 40:5, 40:6.
submitting 7:2.
 6 **success** 45:16.
successful 20:20, 100:17, 120:12.
 7 **successfully** 34:20.
succinct 5:3, 39:4, 118:7.
 8 **sucking** 108:12.
sudden 91:9.
 9 **suffer** 52:13, 53:10, 54:20.
suffered 53:1.
 10 **sufficient** 8:7, 99:11, 167:13.
suggest 188:22.
 11 **suicide** 53:12.
sulfate 13:5, 23:9, 25:17, 25:19, 25:21.
 12 **summary** 166:17.
summer 126:15.
 13 **Sun** 115:1, 178:25, 179:3, 179:4, 179:5.
sunburned 70:7.
 14 **Sundance** 22:15.
sung 52:25.
 15 **Superfund** 125:12, 125:14, 126:8, 126:13, 134:23,
 135:21, 136:17.
 16 **supervision** 31:12, 197:14.
supplement 30:23.
 17 **supplemental** 40:7.
supplies 8:6, 8:9, 138:3.
 18 **supply** 8:8.
support 32:4, 76:4, 106:23, 106:25, 120:14, 121:25,
 19 131:18, 132:17, 132:22, 133:1, 133:23, 134:15,
 139:7, 139:8, 139:24, 181:16.
 20 **supporting** 6:21, 38:15, 97:2, 107:9.
supports 43:17.
 21 **supposed** 65:16, 79:10, 172:18, 195:10.
supposedly 104:20, 135:4, 135:24.
 22 **Supreme** 167:9.
surely 44:11.
 23 **Surface** 11:8, 12:18, 14:15, 15:19, 23:3, 23:17, 45:14,
 141:12, 142:21, 143:5, 143:11, 144:8.
 24 **surgeries** 75:17.
surprise 139:8.
 25 **surrounded** 177:6, 177:14.
surrounding 64:2.

1 **surroundings** 137:10.
 2 **Survey** 100:16.
 3 **surveyed** 186:16.
 4 **surveyors** 78:23.
 5 **surveys** 73:5, 73:24.
 6 **survived** 56:2, 192:14.
 7 **surviving** 163:5, 169:8.
 8 **survivor** 75:12.
 9 **Susan** 29:1, 29:2.
 10 **susceptible** 161:22, 161:25.
 11 **SUTIN** 2:1, 2:4, 8:25, 27:22, 28:2, 29:24, 32:5, 35:25,
 12 37:8, 41:1, 44:2, 44:13, 48:22, 54:1, 54:5, 55:5,
 13 56:10, 60:16, 61:14, 63:4, 64:15, 64:21, 69:13,
 14 71:16, 71:19, 74:13, 76:9, 78:5, 80:4, 80:7, 84:7,
 15 84:10, 87:24, 91:13, 92:3, 94:11, 95:12, 95:16,
 16 101:8, 101:11, 102:15, 103:22, 106:17, 111:2,
 17 115:20, 116:9, 116:17, 116:20, 122:1, 125:22, 126:2,
 18 129:15, 131:10, 133:7, 134:7, 138:24, 140:9, 140:14,
 19 144:25, 145:4, 145:11, 147:12, 147:16, 147:20,
 20 149:8, 152:25, 153:22, 154:12, 154:19, 154:23,
 21 158:19, 158:24, 162:22, 163:15, 165:4, 165:22,
 22 168:17, 173:1, 173:3, 178:18, 179:2, 180:4, 181:23,
 23 184:12, 184:14, 185:25, 187:17, 187:21, 187:23,
 24 188:2, 189:3, 189:10, 195:21.
 25 **swift** 59:18.
Sylvana 74:15, 74:16, 74:19.
symbols 82:7.
System 8:7, 8:9, 16:16, 39:24, 53:22, 75:6, 108:15,
 112:20, 120:6, 135:17, 142:1, 142:24, 171:5, 171:6,
 171:9, 180:11, 183:25.
systems 171:11, 183:1.
 .
 .
 < T >.
T-shirt 74:9.
table 2:14, 2:21, 4:14, 6:18, 7:3, 10:17, 15:17,
 15:20, 117:23, 119:10.
tables 16:14.
tail 89:9.
tailings 175:25, 176:8, 178:6.
taker 60:4.
takoja 59:6.
talked 9:2, 14:12, 29:7, 48:2, 123:15, 128:7, 145:18,
 146:4, 162:7, 174:10, 174:19, 175:2, 175:9, 189:21.
talks 17:5.
TALL 145:13, 145:15, 147:12, 147:15, 147:17.
TAMARACH 145:6, 145:9.
tap 47:8.
target 99:24.
targeted 98:6, 98:11, 98:19.

1 **TASINA** 154:23, 154:25, 155:1, 158:21.
tasks 37:21.
 2 **taste** 13:6.
taught 111:12, 120:5, 153:11, 153:15, 153:18, 183:13,
 3 183:14, 183:15.
tax 187:15.
 4 **taxes** 112:18, 112:25.
taxpayer 97:1.
 5 **teach** 51:20.
teacher 130:18, 153:12, 180:10, 180:14.
 6 **teachers** 49:24, 50:19, 121:15.
teams 40:15.
 7 **technical** 92:20, 132:9.
technology 62:3, 121:4, 121:10.
 8 **teenager** 131:8.
teepee 85:17.
 9 **tells** 16:7, 191:1.
ten 11:20, 57:11, 87:20, 133:4, 141:5, 143:16, 144:6.
 10 **ten-minute** 64:17.
tens 53:4.
 11 **terraces** 141:7.
territory 57:15, 57:25, 58:2, 78:14, 79:7.
 12 **test** 15:15, 15:16, 15:20, 15:23, 16:6, 21:17, 24:10,
 32:22, 84:14, 84:16, 84:21, 85:1, 85:11, 86:9,
 13 86:18, 87:12, 87:18, 90:24, 142:8, 178:8.
tested 49:15, 103:10.
 14 **testified** 82:19.
testimony 4:8, 4:11, 4:18, 4:20, 4:24, 5:12, 6:17,
 15 7:7, 38:17, 38:19, 44:3, 72:9, 81:15, 87:23, 116:13,
 117:4, 117:21, 117:25, 118:6, 118:8, 118:13, 118:15,
 16 119:8, 119:23, 120:3, 127:8, 128:3, 166:8.
testing 31:13, 31:15.
 17 **tests** 15:6, 18:25, 20:13, 33:10, 192:4.
Teton 152:16.
 18 **Texas** 47:5, 47:6.
thankful 166:6.
 19 **Thanks** 80:12, 106:21, 138:23.
theirs 172:7.
 20 **themselves** 25:2, 78:2, 99:20, 193:1, 193:17, 195:14.
then-candidate 33:25.
 21 **theory** 174:14, 174:17, 175:21.
thereafter 197:13.
 22 **They'll** 58:22, 157:24.
thick 24:16.
 23 **thickness** 22:7.
thin 23:5, 24:18.
 24 **thinking** 38:1.
thinner 24:20.
 25 **Third** 1:11, 163:19.
though 65:18, 81:22, 105:17, 166:23, 185:13.

1 **thoughtful** 196:3.
thoughts 38:23.
 2 **thousand** 82:6.
thousands 51:2, 53:4, 79:8, 79:9, 112:3, 144:10,
 3 146:23, 195:17.
threat 13:19, 73:14.
 4 **threatens** 185:4.
Three 9:20, 34:12, 57:2, 70:20, 85:1, 88:9, 130:10,
 5 159:4, 163:1, 174:24, 180:18, 192:14, 195:24.
three. 70:20.
throughout 16:22, 34:22, 35:17, 65:13.
throw 159:6, 163:14.
 7 **thrown** 126:11, 126:17.
Tidball 120:3, 120:4, 122:2.
 8 **tied** 189:19.
Tifft 84:11, 84:13, 87:25.
 9 **Tim** 129:17, 147:20.
tiny 113:18.
 10 **tipsila** 68:5, 169:21.
tired 81:2, 149:17.
 11 **tissue** 70:25, 71:2.
Title 97:13, 109:21.
 12 **titled** 33:12.
tiwahe 59:6.
 13 **toban** 144:12.
Today 2:3, 2:7, 2:10, 3:19, 3:22, 4:5, 4:7, 5:14, 6:1,
 14 6:4, 7:15, 7:19, 8:16, 12:4, 29:13, 29:20, 32:3,
 36:23, 37:24, 49:18, 50:24, 55:14, 57:14, 57:20,
 15 73:12, 74:9, 79:19, 89:19, 96:11, 104:12, 105:14,
 117:19, 121:1, 130:8, 133:12, 145:16, 147:24, 166:9,
 16 175:10, 176:4, 178:21, 188:11, 193:9, 195:24,
 196:7.
together 54:22, 114:11, 114:12, 127:25, 138:10, 150:7,
 151:4, 152:9, 152:10, 152:14, 152:15, 158:14,
 18 158:15, 190:5.
tolerate 54:18.
 19 **tongue** 82:1.
Tonia 64:24, 64:25, 65:6, 168:19, 168:20, 189:9,
 20 189:11, 189:12.
tonight 118:19, 119:15.
 21 **tons** 144:11, 175:12.
took 85:21, 124:21, 124:22, 127:23, 127:24, 129:11,
 22 157:18, 162:7, 172:10, 191:12, 193:12.
tool 172:5.
 23 **top** 63:16, 66:14, 67:4, 81:2, 87:15, 88:21, 175:14,
 190:2.
 24 **topic** 5:4, 118:9.
topographically 143:10, 143:20.
 25 **total** 8:11, 21:13, 21:21, 23:11, 121:21.
totally 120:14, 120:24, 121:25.

1 **touch** 115:22.
tough 77:8.
 2 **tour** 64:6.
towards 16:2, 17:2, 151:12, 158:17.
 3 **town** 39:19, 46:23, 70:9, 76:22, 102:20, 113:5, 113:10,
 113:11, 113:17, 130:17, 142:3, 149:14, 153:3,
 4 153:10, 154:5, 154:17, 154:18, 155:6, 155:7, 172:13,
 173:13, 173:25, 174:1, 174:3, 174:6, 184:4, 184:7,
 5 186:9, 190:20.
towns 113:9, 131:4, 174:4, 174:6.
 6 **Township** 84:24, 133:18, 133:20, 133:22.
toxic 63:23, 64:8, 129:1, 136:5, 136:6, 137:14.
 7 **toxin** 47:11.
Toyota 95:25.
 8 **trace** 183:9.
track 114:16.
 9 **tracks** 169:20.
Tradition 52:10, 52:11, 52:13, 52:23, 151:17.
 10 **traditional** 49:3, 54:10, 76:14.
traditionally 89:17.
 11 **traditionals** 54:9.
Trail 80:22, 80:25, 81:6.
 12 **Trailhead** 80:15.
trails 80:24.
 13 **training** 63:20, 83:23, 92:8.
trampled 107:25.
 14 **transcript** 6:4, 6:6, 6:14, 6:20, 118:22, 118:25,
 119:11.
 15 **transferred** 91:19.
translator 78:17.
 16 **transmissibility** 45:19.
transmit 141:17.
 17 **transport** 64:7.
Transwestern 83:9.
 18 **traveled** 173:20.
traveling 83:8, 83:9, 83:10.
 19 **travels** 12:3.
treat 191:4.
 20 **treated** 8:21, 9:8, 9:9, 11:7, 13:7, 13:11, 22:2,
 26:13, 117:15.
 21 **Treaties** 72:25, 73:1, 73:21, 83:19, 172:9, 179:14.
treatment 3:14, 26:7, 101:4, 159:11, 162:18.
 22 **Treaty** 57:18, 57:19, 60:20, 72:15, 72:17, 155:13.
Tree 34:22, 195:5.
 23 **treehugger** 184:23.
trees 51:2, 70:15.
 24 **trek** 68:2.
tremendous 138:13.
 25 **trenches** 43:8, 44:6.
Trend 57:2.

1 **triangle** 4:22, 118:3.
 triangulate 38:8.
 2 **tribal** 10:2, 10:4, 10:11, 52:2, 53:22, 166:2.
 tribal-approved 73:23.
 3 **tribally** 78:22, 78:23.
 Tribe 49:4, 61:1, 168:5, 187:6, 192:3, 192:4.
 4 **tribes** 10:6, 10:7, 10:9, 74:1, 168:9.
 tributary 12:5, 12:6, 138:5.
 5 **tried** 51:6, 153:3.
 tritium 35:1.
 6 **trouble** 47:23.
 troubling 173:8.
 7 **True** 47:13, 73:25, 105:9, 123:15, 151:21, 181:18,
 183:13, 197:15.
 8 **truly** 95:3, 182:12, 183:8.
 Trump 87:19.
 9 **trust** 57:6, 60:3, 120:17, 158:4, 181:20.
 trusted 186:8, 186:9.
 10 **truth** 153:15, 153:17, 159:1.
 Try 4:25, 5:2, 94:21, 95:9, 123:22, 130:1, 164:17,
 11 164:19, 173:14.
 trying 65:11, 83:6, 98:22, 102:12, 111:11, 111:18,
 12 131:5, 148:12, 164:22, 176:18, 177:1, 177:2, 177:7,
 177:16, 185:4, 187:10.
 13 **tuberculosis** 169:11.
 Tuesday 4:1.
 14 **tumor** 75:16, 75:18.
 Turkey 166:7.
 15 **turn** 4:5, 4:17, 7:10, 29:17, 70:6, 93:12, 117:24.
 turned 70:13, 85:20, 181:21.
 16 **Turner** 132:19.
 turning 173:15.
 17 **turns** 21:19.
 Turtle 49:10, 49:16, 51:16, 89:22, 179:19, 179:23,
 18 193:10.
 two 3:4, 3:25, 8:15, 8:25, 11:25, 38:23, 39:13, 45:12,
 19 46:5, 50:3, 55:9, 65:5, 90:6, 90:7, 99:21, 99:25,
 100:12, 115:3, 116:1, 116:3, 117:6, 120:22, 126:9,
 20 129:22, 132:1, 133:16, 139:5, 150:20, 151:14, 163:2,
 168:7, 174:24, 180:23, 187:3.
 21 **two-legged** 104:10.
 type 8:14, 16:11.
 22 **typewriting** 197:14.
 typical 40:15, 93:25, 180:12, 181:6.
 23 **typically** 166:19.
 24 .
 .
 25 **< U >.**
 UIC 3:5, 3:10, 3:12, 3:18, 8:5, 8:13, 18:4, 27:1,
 27:6, 96:21, 117:7, 117:11, 117:13, 117:18.

1 **ultimately** 103:2, 155:16.
 2 **uncertain** 77:20.
 3 **uncle** 130:11.
 4 **uncovered** 162:12.
 5 **Underground** 1:2, 2:15, 2:19, 3:5, 7:23, 8:2, 8:4,
 6 8:20, 17:11, 19:10, 19:14, 21:12, 21:23, 24:4,
 7 35:12, 35:19, 62:12, 100:24, 117:7, 144:3, 187:2.
 8 **underlying** 16:5, 16:21.
 9 **undermine** 167:18.
 10 **underneath** 115:13, 115:19, 115:25, 116:6, 123:18,
 11 156:11.
 12 **Understand** 7:24, 31:20, 31:22, 62:4, 78:24, 79:25,
 13 81:8, 102:21, 103:12, 103:19, 111:11, 112:4, 126:16,
 14 137:6, 156:22, 176:5.
 15 **understanding** 94:20, 151:8, 197:16.
 16 **underworld** 116:2.
 17 **undetected** 187:1.
 18 **unduly** 133:3.
 19 **unemployment** 53:11.
 20 **Unified** 20:16.
 21 **unique** 41:14, 142:23.
 22 **Unit** 2:16, 2:19.
 23 **United** 34:19, 56:14, 60:21, 73:20, 109:3, 146:5,
 24 167:10, 168:1, 174:5.
 25 **universe** 67:15, 67:16, 195:18.
University 31:2, 35:10.
unknown 77:21.
unless 73:22.
unnecessary 73:13.
unquote 35:14.
unresolved 35:7.
unspoken 49:19.
untapped 115:8.
until 3:21, 10:11, 16:23, 20:3, 31:8, 51:23, 56:7,
 61:19, 70:20, 73:22, 113:12, 116:12, 119:17, 130:12,
 157:13, 196:9.
unusable 45:5.
Upper 14:3, 22:13, 141:20.
Uranium 3:8, 3:12, 8:18, 9:4, 9:14, 9:18, 12:17, 13:8,
 13:15, 14:1, 14:14, 14:15, 14:17, 14:19, 15:5,
 18:16, 26:10, 26:17, 30:21, 30:24, 31:4, 33:9,
 33:21, 35:16, 36:5, 39:8, 39:18, 42:12, 50:5, 51:1,
 51:10, 56:24, 57:6, 57:10, 57:13, 58:19, 61:1,
 61:18, 62:8, 63:15, 68:17, 69:24, 71:3, 71:8, 72:3,
 72:13, 75:6, 75:22, 76:1, 77:14, 77:22, 83:12, 85:1,
 91:4, 91:20, 93:20, 96:19, 100:14, 100:18, 100:25,
 101:22, 102:23, 103:1, 103:5, 103:11, 109:1, 109:7,
 109:24, 109:25, 113:6, 117:9, 117:13, 121:6, 122:13,
 122:17, 122:18, 123:2, 123:6, 123:13, 123:16, 124:6,
 124:10, 124:13, 124:14, 124:18, 125:2, 129:23,

1 131:19, 135:14, 135:15, 135:20, 144:2, 146:1,
 146:17, 148:13, 155:23, 158:17, 159:16, 160:16,
 2 163:25, 164:17, 165:12, 168:23, 169:1, 179:9,
 182:14, 183:20, 188:6, 188:14, 190:15, 192:24,
 3 194:1.
 uranium-bearing 9:15, 15:11, 96:23, 143:8, 143:10.
 4 **urge** 40:21, 40:22, 74:7, 168:14, 168:15.
 USA 3:7, 117:8.
 5 **usable** 174:17.
 USDW 8:23, 23:11.
 6 **Usdws** 21:8.
 user 80:22.
 7 **users** 167:25, 168:4.
 uses 45:5, 98:18, 122:18, 183:21.
 8 **USGS** 34:17.
 USIA 145:7, 145:9.
 9 **using** 65:25, 71:24, 97:15, 98:17.
 Utah 32:13, 32:15, 33:8, 33:12.
 10 **utilize** 104:16.
 utilized 45:2, 45:4.
 11 **Uzbekistan** 103:8.
 12 .
 .
 < V >.
 13 **vacationing** 33:7.
 Valentine 3:24, 106:25, 195:25.
 14 **valid** 43:5, 43:10.
 Valley 168:1.
 15 **Valois** 2:18, 2:22, 62:23, 98:4, 99:17.
 value 146:1, 160:25.
 16 **values** 139:17.
 valve 142:13.
 17 **various** 31:7, 169:9.
 vegetables 67:7, 68:3, 164:10.
 18 **veil** 105:20.
 velocity 35:7.
 19 **verified** 24:21.
 verify 21:6, 24:25.
 20 **version** 41:11.
 versus 167:10, 168:1.
 21 **vertical** 13:24, 14:5.
 vertically 15:14, 16:9, 18:8.
 22 **veterans** 32:21.
 victory 150:17.
 23 **violations** 187:1.
 violent 173:17.
 24 **visiting** 121:14.
 voice 67:20, 76:18, 102:4, 131:8, 153:9, 157:9,
 25 173:10, 190:8.
 Volume 11:10, 35:9, 160:22.

1 **volunteered** 37:20.
 2 **volunteering** 120:24.
 3 **VX** 144:12.
 4 .
 5 .
 6 **< W >.**
 7 **Wahpeton** 74:20, 76:3.
 8 **walk** 30:5, 74:24, 117:1.
 9 **Walter** 86:5.
 10 **WANIYA** 78:6, 78:7, 182:9.
 11 **wanted** 13:1, 17:15, 22:9, 26:6, 27:15, 49:7, 77:13,
 12 78:4, 81:10, 88:19, 90:20, 110:6, 121:23, 130:8,
 13 130:22, 152:20, 152:23, 153:4, 153:25, 173:6,
 14 173:17, 177:18, 184:17, 184:19, 186:5, 192:20.
 15 **wanting** 71:4.
 16 **wants** 2:10, 5:1, 5:8, 6:5, 118:23, 137:20.
 17 **war** 56:20, 89:20, 89:23.
 18 **warfare** 141:3, 144:4, 144:11.
 19 **warm** 14:8.
 20 **warning** 16:16.
 21 **Warrior** 76:23, 152:19.
 22 **warriors** 52:6, 150:15, 150:17, 152:9.
 23 **Washington** 79:4, 184:2, 184:3.
 24 **wasichu** 74:25.
 25 **waste** 3:14, 8:22, 9:8, 9:9, 11:7, 11:10, 22:2, 22:3,
 26 26:8, 26:9, 26:14, 26:20, 34:8, 35:22, 45:7, 58:8,
 27 59:25, 61:2, 63:17, 64:12, 76:1, 101:3, 117:15,
 28 129:1, 141:18, 175:11, 175:12, 175:16, 175:17,
 29 188:13, 188:15, 188:23.
 30 **wasteland** 63:23.
 31 **wastewater** 64:1, 71:9, 101:1.
 32 **watch** 54:20, 110:25.
 33 **watches** 123:11.
 34 **watching** 37:24, 42:7.
 35 **water.** 32:12.
 36 **waterflow** 143:9.
 37 **waterline** 99:1, 99:3.
 38 **waters** 35:22, 59:20, 72:21, 144:9, 146:19, 179:21,
 39 180:1, 180:2, 191:20.
 40 **watershed** 141:19, 141:20.
 41 **ways** 37:22, 105:24, 137:1, 151:14, 158:16, 177:22,
 42 182:8.
 43 **wayside** 64:7.
 44 **weak** 53:7.
 45 **weakness** 105:12.
 46 **wear** 52:10.
 47 **website** 10:15, 10:16, 24:13, 34:5.
 48 **websites** 124:7.
 49 **week** 27:12, 39:12, 119:17.
 50 **weeks** 3:25.

1 **weight** 143:6.
weird 101:23.
 2 **welcome** 88:4, 106:22, 119:18, 186:6.
welcoming 59:9.
 3 **welfare** 33:23.
well-being 157:4.
 4 **well-cared** 137:11.
well-constructed 21:2.
 5 **wellfield** 12:11, 15:16, 16:2, 16:10, 17:3, 17:4,
 17:21, 18:17, 18:25, 19:2, 19:7, 19:23, 20:13.
 6 **wellfields** 11:19, 11:20, 13:4, 15:8, 99:22, 99:25.
welling 100:2.
 7 **wells** 3:11, 3:13, 8:3, 8:13, 8:19, 9:4, 9:7, 9:17,
 9:25, 11:9, 12:1, 12:12, 12:13, 12:20, 12:21, 13:9,
 8 13:23, 14:13, 14:16, 15:18, 16:5, 16:7, 16:12,
 16:22, 18:13, 19:5, 19:21, 20:2, 20:22, 21:1, 21:11,
 9 21:20, 23:18, 24:10, 24:15, 24:22, 25:2, 25:3,
 25:13, 58:8, 58:11, 58:16, 59:23, 63:18, 85:25,
 10 98:10, 100:25, 117:12, 117:14, 128:25, 129:2.
Wenzel 86:4, 86:5.
 11 **West** 34:22, 38:6.
wetlands 141:16.
 12 **Whatever** 29:12, 48:9, 82:21, 94:9, 95:3, 108:3, 109:3,
 109:4, 146:1, 146:21, 160:23, 160:24, 174:25,
 13 176:21, 177:3, 178:7, 181:12.
whatnot 154:4.
 14 **whatsoever** 62:2.
whether 126:13.
 15 **Whew** 68:4.
White 51:21, 56:11, 56:12, 56:15, 60:16, 60:19, 65:25,
 16 70:6, 85:20, 111:3, 111:4, 111:9, 115:20, 115:22,
 116:10, 150:10, 169:1, 173:4, 173:5, 175:14, 186:15,
 17 191:23, 192:2, 194:25.
whoever 83:18, 181:4, 190:6.
 18 **whole** 10:24, 43:3, 54:24, 55:11, 66:11, 67:3, 67:15,
 67:16, 67:23, 86:11, 89:11, 91:25, 105:7, 109:25,
 19 139:4, 150:22, 164:4, 172:6, 174:7, 176:7, 176:8,
 190:24, 193:15.
 20 **Wiconi** 84:9, 145:25.
wife 32:10, 38:5, 81:1, 83:3, 110:2, 153:12.
 21 **Wild** 81:21.
wildlife 75:21.
 22 **Will** 2:6, 4:3, 4:7, 4:8, 4:10, 4:12, 4:19, 4:20, 4:23,
 4:24, 5:4, 5:10, 5:20, 5:24, 6:2, 6:3, 6:5, 6:7,
 23 6:14, 6:19, 6:23, 9:7, 9:10, 9:14, 9:17, 10:10,
 12:11, 12:13, 12:17, 13:12, 15:15, 17:10, 21:2,
 24 25:23, 27:20, 32:12, 36:9, 36:17, 36:25, 37:3, 43:6,
 48:19, 55:1, 55:2, 55:4, 62:24, 63:19, 63:21, 63:25,
 25 69:12, 70:6, 71:1, 73:16, 75:23, 75:24, 76:8, 77:24,
 81:15, 91:7, 91:21, 93:17, 94:22, 95:4, 97:18,

1 97:21, 100:3, 100:20, 101:1, 101:5, 101:16, 104:4,
 104:5, 104:7, 105:6, 105:9, 105:13, 106:4, 106:6,
 2 106:8, 108:21, 110:14, 110:21, 111:6, 112:8, 112:19,
 112:22, 113:11, 113:12, 115:1, 116:11, 117:1, 117:5,
 3 117:21, 117:22, 118:1, 118:2, 118:4, 118:5, 118:9,
 118:20, 118:21, 118:23, 119:1, 119:10, 119:13,
 4 119:16, 120:2, 123:6, 123:7, 123:14, 127:1, 128:16,
 130:6, 131:3, 131:22, 132:4, 132:21, 133:2, 137:23,
 5 137:24, 138:2, 139:12, 141:15, 141:17, 144:2, 150:3,
 150:15, 150:18, 150:20, 151:5, 156:11, 156:23,
 6 161:21, 164:4, 164:13, 164:17, 175:13, 178:24,
 185:10, 188:2, 189:6, 196:2, 196:6, 196:7, 196:8.
 7 **William** 66:7.
willing 77:24, 95:8, 99:9, 148:10.
 8 **Win** 56:16, 155:1, 190:7.
Wind 66:17, 67:11, 114:21, 193:2.
 9 **winding** 193:25.
Winters 166:14, 167:10, 167:11.
 10 **Wioweya** 56:16.
wisdom 84:2, 151:16, 152:11.
 11 **wish** 100:12, 149:2, 181:8.
withdrawals 142:20.
 12 **within** 17:19, 53:14, 78:14, 79:3, 79:6, 99:22, 141:8,
 141:19, 143:8, 149:24, 166:21.
 13 **without** 47:22, 54:20, 54:21, 76:8, 105:25, 127:22,
 133:3, 140:1, 149:25.
 14 **wives** 163:2.
Woman 49:3, 65:8, 150:10, 155:2.
 15 **women** 66:9, 147:8.
wonder 39:16, 153:10.
 16 **wonderful** 121:13, 123:22, 124:22, 124:23.
wondering 84:13, 122:10, 174:21.
 17 **wool** 70:6.
word 59:18, 59:19, 107:22.
 18 **words** 40:11, 58:25, 92:15, 152:11, 183:4, 190:12,
 190:13.
 19 **Work** 4:7, 30:22, 31:9, 38:7, 41:17, 43:6, 57:3, 62:1,
 91:6, 94:19, 126:12, 130:3, 132:8, 132:9, 132:13,
 20 133:14, 140:6, 140:19, 141:16, 144:23.
worked 30:21, 30:24, 31:7, 41:9, 42:14, 61:19, 62:7,
 21 70:23, 90:21, 92:13, 92:14, 92:25, 93:3, 93:5, 98:5,
 135:16.
 22 **workers** 63:21, 163:11.
working 33:20, 61:18, 95:1, 95:6, 111:15, 128:7,
 23 129:23, 160:14, 162:13, 165:1.
works 2:18, 2:21, 103:7, 103:8, 103:9, 120:15,
 24 126:16.
world 52:9, 59:7, 59:9, 67:15, 79:4, 93:12, 103:10,
 25 107:23, 110:1, 116:2, 122:10, 123:16, 123:24,
 150:20, 151:6, 151:21, 152:3, 158:14.

1 **worlds** 74:24, 116:1, 116:3, 150:20.
worldwide 104:9.
 2 **worn** 53:5.
worry 46:19.
 3 **worship** 150:11.
worst 183:25.
 4 **Wounded** 179:6.
wrap 54:6, 60:17, 91:14, 145:1, 147:13, 162:23.
 5 **wrapping** 147:17.
write 32:16, 36:20, 46:8, 51:21, 101:19, 108:21,
 6 108:22, 119:24.
writings 177:12.
 7 **Written** 5:22, 6:16, 6:21, 6:25, 7:7, 119:7, 119:11,
 119:16, 119:18, 119:23, 134:13, 152:19, 162:1,
 8 196:9.
wrote 87:19.
 9 **Wyoming** 30:8, 34:6, 41:11, 41:18, 43:19, 59:25, 103:9,
 132:8.
 10 .
 11 .
 11 < X >.
X-ray 161:16.
 12 **X-rays** 47:25, 71:1.
 13 .
 14 .
 14 < Y >.
Yankton 148:3.
year 12:8, 52:8, 65:13, 161:11, 162:7, 163:1, 163:3,
 15 191:14.
year-round 85:6.
 16 **yearns** 105:1.
years 10:4, 20:19, 28:25, 29:4, 31:4, 32:13, 32:25,
 17 34:24, 42:15, 52:21, 53:5, 53:6, 57:8, 57:11, 57:12,
 57:17, 58:9, 62:8, 70:2, 70:20, 70:21, 77:25, 79:9,
 18 81:3, 82:6, 82:9, 82:11, 85:15, 86:8, 87:1, 87:20,
 88:9, 89:20, 92:12, 92:17, 93:1, 95:6, 111:16,
 19 112:3, 112:5, 112:10, 113:7, 113:17, 114:7, 115:2,
 120:6, 122:6, 127:22, 127:25, 129:4, 129:22, 130:7,
 20 130:13, 131:1, 132:1, 132:5, 133:4, 133:15, 135:17,
 136:8, 136:13, 139:5, 146:4, 146:24, 147:1, 147:3,
 21 150:3, 151:24, 156:17, 165:14, 165:15, 168:7,
 173:24, 177:5, 177:9, 180:9, 180:11, 187:4, 195:17.
 22 **yellow** 4:22, 118:2.
Yellowcake 64:7, 64:9, 160:15.
 23 **yesterday** 4:1, 44:18, 44:25, 65:2, 65:3, 65:11, 65:17,
 124:21, 155:1, 169:4.
 24 **young** 32:13, 51:23, 76:19, 77:25, 127:16, 127:17,
 132:12, 145:16, 165:25, 173:12, 181:5, 184:10.
 25 **yourself** 108:4, 170:19.
yourselves 93:24.

1 .
2 .
3 < z >.
4 **zero** 159:22.
5 **zone** 15:13, 16:8, 18:6, 18:9, 18:11, 22:6, 22:8, 22:9,
6 22:14, 23:21, 24:6, 25:1, 25:19, 25:20, 26:1, 26:3.
7 **zones** 18:15, 21:3.
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25